**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

| | |
|---|---|
| In the Matter of | |
| Technology Transitions | GN Docket No. 13-5 |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | GN Docket No. 12-353 |

# COMMENTS ON AT&T PETITION AND REPLY COMMENTS ON IOWA NETWORK SERVICES PETITION OF PUBLIC KNOWLEDGE, THE NEW AMERICA FOUNDATION'S OPEN TECHNOLOGY INSTITUTE, AND THE BENTON FOUNDATION[1]


Jodie Griffin
*Senior Staff Attorney*
PUBLIC KNOWLEDGE
1818 N Street NW, Suite 410
Washington, DC 20036
(202) 861-0020
jodie@publicknowledge.org

Sarah Morris
*Senior Policy Counsel*
NEW AMERICA FOUNDATION'S OPEN TECHNOLOGY INSTITUTE
1899 L Street, NW, Suite 400
Washington, DC 20036

Amina Fazlullah
*Director of Policy*
BENTON FOUNDATION
1250 Connecticut Ave., NW Suite 200
Washington, DC 20036


March 31, 2014

[1] The Benton Foundation is a nonprofit organization dedicated to promoting communication in the public interest. These comments reflect the institutional view of the Foundation and, unless obvious from the text, are not intended to reflect the views of individual Foundation officers, directors, or advisors.

## TABLE OF CONTENTS

## SUMMARY

As the Federal Communications Commission begins the process of reviewing trial proposals for the phone network transition, it must ensure the trials actually serve their intended purpose: to carefully, objectively, and comprehensively collect data about new technologies that will inform the Commission's decisions about the standards new networks must meet before they can replace the existing network infrastructure. To that end, the Commission should not approve the trials proposed by Iowa Network Services (INS) and AT&T until the applicants submit further information to clarify how the trials will operate and improve the trials' data collection methods and consumer protections, respectively.

Just because a technology is newer does not mean it is better in all respects.[2] While a new network technology might bring some advantages like lower deployment costs or higher quality wireline voice service, that technology is not a true step forward for everyone if it also abandons certain calling features supported by the existing network, subjects users to longer or more frequent outages, or results in lower service quality. If well designed and carefully conducted, these trials can give the Commission the opportunity to more fully understand where new technologies may improve service for consumers and where those technologies must still be improved before carriers can convert entire communities over to them.

However, the potential utility of these technical trials does not mean that the Commission should delay in moving forward to address the many unresolved legal and policy issues in the network transition. The data from these trials—if collected scientifically—will be useful to the Commission in certain respects, but it must still address many other facets of its policies that

[2] *See The Phone Network Transition: Lessons from Fire Island*, Public Knowledge (Mar. 7, 2014), *available at* http://www.publicknowledge.org/news-blog/blogs/the-phone-network-transition-lessons-from-fire-island.

impact the Commission's goals of ensuring public safety and national security, universal access, competition, and consumer protection throughout and after the transition.[3] The Commission should continue to develop its managerial framework for the transition even as it collects data through the trials to inform its final standards.

AT&T's trial proposal must be considered incomplete until the company submits much more thorough and comprehensive data collection methods. If these trials are to be useful at all they must collect data objectively and scientifically. This means the Commission should not give its stamp of approval to a trial proposal without knowing, for example, what the control group will be or exactly how the trial will seek out feedback from network users.

Even if the trial designs are improved to collect all useful data in a reliable way, the Commission must recognize that trials this small in scope will necessarily be of limited utility unless they are supplemented with further trials to give the Commission a more full (and statistically significant) understanding of these new technologies. There are many questions that will remain unanswered even after these trials, and the Commission should not pretend that these two trials in Alabama and Florida give us any information at all about the impact of network transitions in, for example, colder climates, mountainous terrains, or urban areas.

Finally, the Commission must vigilantly protect network users throughout the trials. No carrier should be permitted to systematically deny existing or new customers access to services

---

[3] *See Technology Transitions*, GN Docket No. 13-5, *AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition*, GN Docket No. 12-353, *Connect America Fund*, WC Docket No. 10-90, *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, *Numbering Policies for Modern Communications*, WC Docket No. 13-97, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative at ¶¶ 37-69 (rel. Jan. 31, 2014) (hereinafter *Technology Transitions Trials Order*).

using the traditional network infrastructure until the Commission has ensured the replacement services are comparable—a conclusion the Commission is still far from reaching. To the extent that customers move voluntarily onto new services, the carrier must explicitly and prominently notify the customer of the known limitations or risks in the new technology. In particular, the Commission must ensure that people relying on features like medical alerts, alarm systems, 800 numbers, and collect calling are not left behind in the transition.

The technology transitions trials, like the overall transition, must serve the people using the network first and foremost. The Commission cannot assume that network changes will automatically result in better service, so the Commission must use these experiments to inform its actions to ensure the transition leaves customers better off. To that end, the proposals submitted by Iowa Network Services and AT&T are first steps toward complete proposals, but both applicants must provide substantially more information about the trials' data collection and customer protection mechanisms before they can even be fully considered, much less approved. In their current state, both proposals are unacceptable and should not be approved. The Commission should therefore require the applicants to resubmit applications with sufficient details to fully evaluate the proposals and ensure successful, carefully designed trials.

## ARGUMENT

### I. The Data from These Trials Will Help the FCC Determine When Service Is Impaired During Network Transitions.

As the Commission considers the proposals put forward by AT&T and INS, it must remember that these trials—and the broader network transition—are not about any one provider. The trials should not become just a platform for a provider to show off neat new features while sidestepping the hard questions. Rather, the trials are the Commission's opportunity to gather objective, measurable data about the performance of the existing network and new networks on a

variety of metrics. If designed and executed well, these trials will result in a broad and deep set of data that will help the Commission determine whether new technologies proposed by carriers constitute an impairment of service to the people relying on the services they have now.

If a carrier desires to "discontinue, reduce, or impair service to a community, or part of a community," the carrier must first obtain a certificate from the Commission that "neither the present nor future public convenience and necessity will be adversely affected thereby."[4] As carriers now increasingly indicate their interest in updating their networks to IP-based technologies or in replacing their copper infrastructure with fiber or wireless networks (or both), it is far from certain that all of these proposed transitions would leave all people in the same or better position than they were in before. By law, carriers cannot replace their existing service with new services until the Commission certifies that doing so serves the public's interest. It is therefore in everyone's interest—carriers, users, and the Commission alike—to establish a set of known standards by which the Commission can determine whether a new service is as good or better than the existing service customers rely on.

These trials are an important part of the standard-setting exercise the Commission must undertake to establish when and how network users can complain about problems that arise when carriers wish to move to new technologies. A successful series of trials will result in the information and material the Commission needs to create a "checklist" for all stakeholders to work from to determine when a network service change harms the users relying on that service.[5] It is the responsibility of the Commission to set these metrics just as much as it is the Commission's responsibility to determine, for example, when a particular use of spectrum

[4] 47 U.S.C. § 214(a).

[5] To the extent that some of these issues have traditionally been the province of the states, AT&T's choice to locate its trials in the heavily deregulated states of Alabama and Florida places these responsibilities squarely on the FCC's shoulders.

creates harmful interference.[6] The metrics that the Commission comes away from these trials with could become the basis for user complaints or objections to a § 214(a) application, and the Commission should therefore ensure the metrics the trials produce are comprehensive.

Clear, objective metrics for evaluating a proposed network transition will benefit all stakeholders. Most importantly, these metrics will ensure that customers relying on particular features and characteristics of the existing network will not be left behind in a network transition. Carriers will also benefit from clear rules that show them exactly what standards they will need to meet to deploy a new technology in place of the networks they currently support. And the Commission will be able to turn to a standard set of metrics to make sure users are still protected while running § 214(a) proceedings efficiently.

For any possible metric with a clearly quantitative component, the Commission should use the information gathered in these trials to determine the level of variation that would be sufficiently significant to constitute an impairment of service. As the public saw during Verizon's attempt to replace its copper-based service in Fire Island with the fixed wireless service Voice Link, allowing a carrier to unilaterally determine that its new service meets its own comparative test standards is a recipe for customer outcry,[7] in addition to the risk of putting people using the network in serious danger.

With that frame in mind, it is evident that AT&T's trial proposal is not yet suitable for approval. The Commission can, however, allow AT&T to fill in the blanks in its plans,

---

[6] There is ample precedent for the Commission creating standard measurement procedures. For example, the FCC maintains a number of measurement procedures for equipment authorizations. *See Equipment Authorization Measurement Procedures*, FCC, http://transition.fcc.gov/oet/ea/eameasurements.html.

[7] *The Phone Network Transition: Lessons from Fire Island*, Public Knowledge (Mar. 7, 2014), *available at* http://www.publicknowledge.org/news-blog/blogs/the-phone-network-transition-lessons-from-fire-island.

consistent with the requirements laid out in the Commission's Trials Order,[8] and its updated proposal for comment and approval. This plan will ensure the trials result in maximally useful results without causing unreasonable delay.

## II. The Current Trial Proposal's Design Is Seriously Flawed.

The sole purpose of the technology transitions trials is to gather reliable, replicable, and useful information to help the Commission eventually determine how carriers will be able to demonstrate that new technologies are a true step forward for all users on the network. As Commissioner Pai recently explained: "we must be able to evaluate an all-IP trial with empirical data[.]"[9] The entire point of running technical trials is gather data to inform policy decisions in the network transition. They are at heart a data-gathering exercise, and so trial proposals must thoroughly explain what data they will collect and how.

### *A. Data Collection Methodology*

AT&T's trial proposal currently gives far too little information about its data collection methodology and metrics to even give a meaningful response at this point. The Commission should therefore require AT&T to submit more detailed data collection plans for stakeholders to comment on before the trials are approved.[10]

---

[8] *See Technology Transitions Trials Order* ¶¶ 22-81.

[9] *Budget Hearing—Federal Communications Commission: Hearing Before the Subcommittee on Financial Services and General Government of the United States House of Representatives Committee on Appropriations*, 113th Cong. 5-6 (2014) (statement of Ajit Pai, Commissioner, FCC).

[10] The Iowa Network Services proposal contains slightly more information about how and what data it will collect during the trial but, similar to AT&T's proposal, needs further detail and more robust data collection mechanisms before it can be approved. *See* Application of Iowa Network Services, Inc. for Authority to Conduct a Service-Based Experiment Concerning the TDM-to-IP Transition for Centralized Equal Access Service, *Technology Transitions*, GN Docket No. 13-5, at 18-19 (Feb. 20, 2014) (hereinafter *INS Trial Proposal*).

1. Data Collection Metrics

The trials should collect data on a wide variety of performance indicators, including both objective technical metrics and customer feedback. AT&T's trial proposal only sets forth two technical measures for network performance during the trials: the number of blocked calls and the number of dropped calls.[11] These measures indicate two versions of the same problem—namely, a customer's inability to successfully connect and complete a call.[12] While this one data point is useful, the proposal fails to include a much broader sets of metrics by which to evaluate the new technologies AT&T proposes to use to replace the traditional services that network users rely upon. The technical trials must measure any new technologies using a variety of performance indicators, including: network capacity, call quality, device interoperability, accessibility for users with hearing disabilities, system availability, PSAP and 9-1-1 access, cybersecurity, call persistence, call functionality, and wireline coverage.[13]

There are a number of performance problems that can arise on a network beyond simply blocked or dropped calls. Intermittent quality, noise on the line, low volume levels, problems with call routing, and issues with customer-premises equipment can all have significant impacts on a user's experience without qualifying as a dropped or blocked call. The trials should be designed to capture information about all of these potential problems in order to obtain a full understanding of the user experience on the new technologies being tested.

[11] *AT&T Wire Center Trial Operating Plan* § 6.5.4, p. 54.

[12] *Response to AT&T's Proposal for Wire Center Trials in the IP Transition Proceeding,* CTC Technology & Energy at 4 (Mar. 27, 2014) (hereinafter *CTC Response*).

[13] *CTC Response* at 4; *A Brief Assessment of the Engineering Issues Related to Trial Testing for IP Transition*, CTC Technology & Energy, at 4-28 (Jan. 13, 2014) (hereinafter *CTC Report*).

AT&T's proposal also explains the results of its own previous Mean Opinion Score (MOS) testing for its PSTN, U-Verse Voice, and Wireless Home Phone services.[14] In theory, MOS is a measurement that can collectively test a variety of technical impairments, and can provide a way to quantify qualitative measurements. However, AT&T's proposal does not indicate that it will use MOS on an ongoing basis throughout the trials, nor how it would gather MOS data or how frequently it would do so. The MOS metric can be a useful data point—in addition to other objective and subjective data—and it should be included in the testing throughout the trials, not just prior to the trials.

No one metric will give the Commission a complete understanding of any given new technology. As a result, the trials' data collection methodology should include both objective technical measurements and feedback from the actual people using the new technologies. The Commission should therefore require AT&T to expand its proposed data collection methods to fully measure all of the potential service problems that can arise on the network.

2. Data Collection Frequency

The trials should collect and publicly report data as frequently as possible on each of the metrics discussed above. AT&T's operating plan proposes to report on customer migrations, customer issues, blocked and dropped calls, access for users with disabilities, and network outages quarterly.[15] In addition to needing a wider variety of metrics on which to collect data, the trials should collect and report on this data much more frequently than on a quarterly basis.

Particularly for technical parameters automatically measured by software, there is no reason data collection cannot be broken down into an hour-by-hour analysis that would allow the Commission to see how the new technologies being tested respond to particular stresses during

[14] *AT&T Wire Center Trial Operating Plan* § 6.5.7, p. 55.

[15] *AT&T Wire Center Trial Operating Plan* § 6.5, pp. 53-55.

different points of the day. And while subjective feedback may be more costly to collect, it is important to obtain this information as frequently as possible to understand how the network is performing and to ensure the trial is not significantly disrupting users' ability to rely on the network to communicate.

Furthermore, the data collected must be disclosed far more frequently than on a quarterly basis. After all, it is not as if AT&T and the independent evaluator need a long time to prepare the reports—this information will presumably be presented as raw data, without any special packaging that could obscure problems in the network. If AT&T or the independent evaluator also wishes to present a less frequent report summarizing the data that has already been released, it can be free to do so.

3. Community Feedback

The trials should solicit affirmative customer feedback through an objective third party. AT&T's proposal does not include any explicit plans to affirmatively reach out to customers to solicit feedback throughout the trial.[16] The closest AT&T comes to a plan to actually reach out to customers for feedback before they call to complain is a note that disability organizations may report feedback they receive from the trial communities.[17] These plans are grossly inadequate to receive reliable customer feedback across all users. Throughout the trials, AT&T should provide for an independent third party to affirmatively solicit feedback from customers, and non-profits representing specific vulnerable communities should not bear the burden of collecting that data.[18]

[16] *See AT&T Wire Center Trial Operating Plan* § 6.5.3, p. 53.

[17] *AT&T Wire Center Trial Operating Plan* § 6.5.5, p. 54.

[18] Any additional feedback disability rights groups or any other public interest organization can add will be useful, but the trial itself should provide a baseline of information that advocacy groups can then add to or evaluate.

It is important that the trials affirmatively seek out feedback from customers, because a feedback report that only includes those people who had significant enough problems to call to complain (and who found a way to call despite presumably having trouble with their phone service) will only show the Commission the tip of the iceberg. The trials must solicit feedback from all customers, both to gather information about any benefits of the new technology and to gather information about potential drawbacks of the new technology that a customer, for one reason or another, might not rise to the level that would make a customer take the initiative to call and complain about.

The customer feedback surveys should also be designed with input from an independent third party and from representatives from the community. Having qualitative survey questions designed by an independent third party will ensure that the survey itself is objective, comprehensive, and reflects the real experience of the people using the network. The community representatives could include staff from local government, public safety entities, and residents from the community.

In addition to objective technical measurements of network performance, the trials should collect qualitative feedback from the people actually using the new technologies. This information must be collected objectively and thoroughly to ensure the results can actually help the Commission decide how to set the standards for new technologies intended to replace the current PSTN physical infrastructure.

### *B. Transparency*

To increase transparency and improve the reliability of the data obtained during the trial, the FCC should require that an independent third party be involved with the trial's data collection and evaluation. AT&T's current proposal names itself as the collector and evaluator of

the trial's data.[19] But rather than permit the carrier proposing the trial to filter all of its results, the Commission should either take upon itself to collect information during the trials or require AT&T to hire an objective third party to ensure that information is collected and reported fairly during the trials.

Additionally, complaints and other customer feedback during the trials should be made publicly available throughout the trial. AT&T proposes providing a "summary" of consumer issues during the trials,[20] but the Commission should require feedback to be completely available for public review—subject to certain protections for customer privacy. From a technical standpoint, bundling customer complaints into generalized categories makes it impossible to understand the intricacies of the issues at play, robs customers of the opportunity to be heard in their own words, and stifles public discourse on the technologies being tested.[21] The trials should also include a mechanism by which residents in the trial communities can submit complaints to the Commission and/or the third party data collector, which are then included in the trial's public record.

Assuming all of the relevant data is available publicly, the local community board discussed above[22] can be included to periodically evaluate that feedback. This will ensure that the trials have local oversight and accountability during the pendency of the trials, should any problems occur that require immediate action to protect network users during the trials.

The trials must be transparent to instill confidence in their results. Transparency also protects network users from harms while the trials are still ongoing. The Commission should

---

[19] *AT&T Wire Center Trial Operating Plan* § 6.5, p. 53 ("…AT&T will collect and report to the Commission a variety of data….).

[20] *AT&T Wire Center Trial Operating Plan* § 6.5.3, p. 53.

[21] *CTC Response* at 7.

[22] *See supra* § II.A.3.

require any approved trials to make their data publicly available for all interested stakeholders to evaluate and comment on.

### *C. Control Group*

Any data gathered during the trials will necessarily be of limited utility unless the trial includes testing and feedback from a control group that provides a baseline for evaluating results from the participants using the trial's new technologies. AT&T proposes to use control groups for its trials, but does not specify where those controls will be and only lists "weather conditions, traffic congestion, and other network-effecting events" to determine sufficient similarity between the control and the trial site.[23] To ensure the control groups are sufficiently similar to the variable groups, the trials should ideally use a randomly selected control group from the same wire center as the variable groups.[24] If the Commission does not require that the control group come from the same wire center as the trial subjects, it must at the very least require that proper control groups be selected based on a wider variety of factors.

If the control group cannot be located in the same wire center as the trial, the control should at least be located in the same region.[25] Additionally, the following technical and demographic characteristics of the two wire centers must be the same:

1) Similar age of plant (both in range and average),
2) Similar length of loop,
3) Similar level of aggregation with digital loop carriers,
4) Similar penetration of fiber,

---

[23] *AT&T Wire Center Trial Operating Plan* § 6.5.4, pp. 53-54. For its part, INS proposes using a self-selected control group consisting of those providers that opt not to use IP Centralized Equal Access service. *See INS Trial Proposal* at 18-19. Allowing for a self-selected control group compromises the control's ability to act as a baseline that is similar to the variable group in all respects but those variable introduced in the trial itself.

[24] *CTC Response* at 6.

[25] *Id.*

5) Similar breakdown between single-family homes and multi-dwelling units, and between residential and business connections,
6) Similar number of passings served, and
7) Similar level of staff training.[26]

Finally, the control group must cover a population similar to that of the trial group. The two populations should have the same income, age, language, race/ethnicity, size of household, and level of education. The control group should also have similar anchor institutions in the community as those of the trial wire center. Without having similar wire center communities, customers' different reactions to the new technologies may reflect variables other than the technology itself.

Without ensuring the control group is the same as the trial group in all of these characteristics, the trials results will only exist in a vacuum. To fully understand whether the trials' new technologies truly constitute a step forward for all customers, the trials must have a control group that reveals how the network is performing now and how customers rely on it. This, incidentally, is why it is ultimately best to simply select a control group within the trial wire center. But if the Commission does not require a control group within the same wire center as the trial, it must at least ensure the control groups are equivalent in all relevant respects to the trial wire centers.

## III. The FCC Must Have More Diverse Information for Statistical Significance

As Commissioner Pai recently explained, the "trials should reflect the geographic and demographic diversity of our nation—and the order sought 'experiments that cover areas with different population densities and demographics, different topologies, and/or different seasonal

[26] *Id.*

and meteorological conditions.'"[27] Even assuming the trials' data collection methodologies are sufficiently improved to merit approval, the Commission must acknowledge that the trials before it will necessarily be of limited descriptive and predictive utility given their current scope.

AT&T currently proposes trials in only two wire centers, likely representing approximately 0.07% of AT&T's wireline customers.[28] While this proposal can ultimately be one small piece of the puzzle, the results from Carbon Hill and Kings Point are nowhere near broad enough to inform the Commission about all the variables that will come into play for a transition across the entire country. Public Knowledge continues to believe trials should be implemented in at least 100 wire centers, representing a variety of geographic, socioeconomic, and cultural settings, if the trials are to reach a sufficient sample size for reliable feedback.[29]

The proposed trial locations cannot hope to demonstrate the viability of new technologies across all possible terrains. Even within their respective zones of population density. Carbon Hill cannot possibly be expected to represent all of rural America, Kings Point will not demonstrate all of the issues related to deployment in a suburban community, and AT&T's proposals do not broach the issue of urban areas at all. The proposed trials also do not address network performance in cold climates or mountainous terrain, among others. More trials will also be needed to understand the impact of new technologies with different population densities, economic levels, language preferences, and racial and ethnic make-up.

---

[27] *Budget Hearing—Federal Communications Commission: Hearing Before the Subcommittee on Financial Services and General Government of the United States House of Representatives Committee on Appropriations*, 113th Cong. 5-6 (2014) (statement of Ajit Pai, Commissioner, FCC).

[28] *AT&T Wire Center Trial Operating Plan* § 2, p. 2; *CTC Response* at 2.

[29] *See CTC Response* at 2; *CTC Report* at 11.

Similarly, as one commenter has noted with regard to the INS proposed trials: "The risks for network and service catastrophes could be lessened with additional service trials, especially by small and rural carriers."[30] The Iowa trials too could benefit from the broader scope achieved by running additional trials, particularly to confirm the results of the trials before retiring the infrastructure that has thus far served communities reliably.

This is not to say that the proposed trials cannot be made into a good preliminary step in the trial process. But the trials' significant limitations in scope and statistical significance will affect how the Commission is able to rely on the data collected and will impact what we can reasonably expect to learn from these two experiments. With improvements to the trials' design, these experiments can be a good first step, but they will only be a first step. Even with appropriate trial design, it is evident the trials are certainly not ready to be a prelude to a real deployment.

## IV. The Trials Must Include Robust Consumer Protections.

As the Commission has acknowledged, the communities relying on the network must continue to be protected through the technical trials.[31] In this regard, AT&T's trials must include robust consumer protections throughout the trials, and the Commission must scrutinize the

[30] Comments of Marashlian & Donahue, LLC in Support of the Application of Iowa Network Services, Inc. for Authority to Conduct a Service-Based Experiment Concerning the TDM-to-IP Transition for Centralized Equal Access, *Technology Transitions*, GN Docket No. 13-5, at 4 (Mar. 19, 2014).

[31] *Technology Transitions Trials Order* ¶¶ 65-69. *Budget Hearing—Federal Communications Commission: Hearing Before the Subcommittee on Financial Services and General Government of the United States House of Representatives Committee on Appropriations*, 113th Cong. 5-6 (2014) (statement of Ajit Pai, Commissioner, FCC) ("Third, no one can be left behind—and the order declared that 'no consumer [may] lose[] access to service or critical functionalities' and that residential and business customers must receive 'clear, timely, and sufficient notice of any service-based experiment.").

proposal's protections especially closely with regard to any phases that deny customers the choice to use the existing network.[32]

As we have seen in communities like Fire Island, New York, the Commission must be especially careful when dealing with services that fail to support key features that customers rely on.[33] AT&T's proposal notes that its Wireless Home Phone service does not currently support E-911 with street address, alarm monitoring, medical alerts, credit card processing, 800 number services, collect calls, and elevator phones, and AT&T's wireline U-verse voice service does not support 800 number services, collect calls, and elevator phones.[34] It is worth confirming that the Commission cannot even begin the approval process for any "trial" that would deny customers the ability to stay on or opt into the existing infrastructure when the new technologies fail to support features many people still rely on. Moreover, the Commission must ensure that any information distributed to customers for truly voluntary trials explains prominently and clearly the limitations of the new network so customers are not caught unaware after switching services.

## CONCLUSION

The transition of our phone network is a long and complex process, and the Commission should use these trials as an opportunity to gather objective, measurable data about the new networks' performance and how those networks impact the communities using them. The

[32] In this regard, the Commission could look to, among other sources, the National Science Foundation's treatment of experiments involving human subjects. *See, e.g.*, 45 C.F.R. § 690.111 (requiring that research minimize risks to subjects, select subjects equitably, obtain informed consent from subjects, make adequate provision for data monitoring, protect subjects' privacy, and include additional safeguards to protect vulnerable populations).

[33] *The Phone Network Transition: Lessons from Fire Island*, Public Knowledge (Mar. 7, 2014), *available at* http://www.publicknowledge.org/news-blog/blogs/the-phone-network-transition-lessons-from-fire-island.

[34] *AT&T Wire Center Trial Operating Plan* § 4.3, pp. 13-15.

Commission must require applicants to resubmit the pending trial proposals to ensure the trials protect consumers while ensuring the information gathered is objective, reliable, and useful.

Respectfully submitted,

/s/
Jodie Griffin
*Senior Staff Attorney*
PUBLIC KNOWLEDGE

Sarah Morris
*Senior Policy Counsel*
THE NEW AMERICA FOUNDATION'S OPEN TECHNOLOGY INSTITUTE

Amina Fazlullah
*Director of Policy*
BENTON FOUNDATION

March 31, 2014

ctc technology & energy

engineering & business consulting

# Response to AT&T's Proposal for Wire Center Trials in the IP Transition Proceeding

**March 27, 2014**

*Prepared for Public Knowledge by CTC Technology & Energy*

**Columbia Telecommunications Corporation**

10613 Concord Street • Kensington, MD 20895 • Tel: 301-933-1488 • Fax: 301-933-3340 • www.ctcnet.us

## Table of Contents

## 1. Introduction

AT&T's Proposal for Wire Center Trials,[1] filed in response to the Federal Communications Commission's approval of the company's Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, is an adequate starting point for a proof of concept, but as a trial it is insufficient in its scope, fails to establish test thresholds, and lacks the transparency necessary for adequate peer review and the application of the testing regime to future transitions. Given these shortcomings, the Commission should include elements of AT&T's proposal as an initial building block for a scientifically sound testing approach.

In this response to AT&T's proposal, prepared by the engineers of CTC Technology & Energy on behalf of Public Knowledge, we identify shortcomings in AT&T's proposal and outline specific steps to ameliorate those shortcomings. Our focus is to establish an appropriately stringent testing program, to ensure that the results are replicable, and to ensure that the test results are transparent and publicly available as befits a trial.

[1] "AT&T Proposal for Wire Center Trials," In the Matter of Technology Transitions (GN Docket 13-5) and AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition," February 27, 2014.

## 2. AT&T's Proposal Lacks Necessary Range in Testing Locations, Depth in Testing Types, and Specificity Regarding Test Result Thresholds

AT&T's proposal to the Commission presents a reasonable framework but exhibits at least three deficiencies. First, it suggests only two test locations for the entire United States. Second, it prescribes an insufficient range of technical tests. And third, it fails to define passing and failing results for those tests. AT&T's selection of a "control group" also requires additional consideration.

### Test Locations

AT&T has submitted a "proposal for two trials involving the transition of two wire centers — one rural and one suburban — to all IP services."[2] These two test sites represent just 0.04 percent of AT&T's 4,700 wire centers—and approximately 0.07 percent of AT&T's wireline customers.[3] Based on the recognized standards of scientific sample sizes, these small percentages are insufficient for a trial designed to identify and resolve the full range of issues raised by the TDM-to-IP transition in all of AT&T's wire centers (and, by extension, in all wire centers).

We reiterate here the recommendations we made in our report, "A Brief Assessment of Engineering Issues Related to Trial Testing for IP Transition," prepared for Public Knowledge and filed as part of this proceeding on January 13, 2014:

> Testing should be conducted at a minimum of 100 separate wire centers across the U.S. (together representing approximately 1 percent of the phone lines in the U.S.). Wire centers under test should collectively represent urban and rural environments, large and small service areas, a range of telephone companies, and the range of equipment types and configurations that the telephone company plans to use. If the [Commission's] architecture review indicates that the telephone system is so diverse that 1 percent cannot represent the range of environments in a statistically viable way, then a larger number should be tested.

---

[2] "AT&T Proposal for Wire Center Trial," p. 1.

[3] Estimate based on figures cited by AT&T. See: "AT&T to Invest $14 Billion to Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services," News Release, AT&T, Nov. 7, 2012. http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661

AT&T's proposed rural wire center test site, in Carbon Hill, Alabama, serves an area with "approximately 4,388 living units." In the version of its proposal that has been prepared for public inspection, the company has redacted the actual number of units it currently serves with wireline; we assume that the number served is far less than that total, because AT&T notes that the percentage of units served "underscores the point that many customers already have made the choice, even in rural areas, to transition away from the traditional TDM telephone network and services…."[4]

AT&T proposes to provide living units in Carbon Hill with "wireline and/or wireless broadband services"—but has again redacted the percentage of units it proposes to serve with wireline, making it impossible to judge the efficacy of this small trial.

Even if all of these living units were part of AT&T's wireline trial, however, these 4,388 sites could not possibly stand in for all of rural America, which has a much broader spectrum of geography, topography, population densities, and weather—and which is served by wireline systems of varying ages and which have experienced varying levels of maintenance and updates.

Similarly, the proposed suburban wire center test site—Kings Point, in Palm Beach County, Florida—is not an adequate proxy for all suburban wire centers nationwide (we note also that urban wire centers, with their unique service characteristics, are not contemplated at all by AT&T's proposal). AT&T has again redacted the percentage of the 49,712 living units in Kings Point that it proposes to serve with wireline broadband services under this trial, making it impossible to judge the merit of this test even based on that limited number of test subjects. And the company's argument that "70 percent of [the metropolitan area's] population is over 50 years of age," too, does not give credence to the notion that this test site can represent all of the TDM-to-IP transition issues that might affect "older Americans."[5]

We suggest that testing the two wire centers constitutes an acceptable first step only—a proof of concept—to demonstrate some of the possibilities of carrying out the transition in this manner and to begin to identify issues posed by the migration.

We suggest that the proof of concept be followed with a trial of the size we suggested earlier in order to gather more valid results and incorporate issues that may be caused in a wider range

[4] Ibid, p. 13 – 14.
[5] Ibid, p. 14 – 15.

of environments—environments including urban and thinly populated communities, cold weather, mountains, desert, and others not represented in the proof. The environments should also include the full spectrum of existing phone systems—aerial and underground, old and new, fiber-rich and fiber-poor—and a wider range of demographics.

## Test Types

AT&T's response outlines only two technical parameters that the company would test: "blocked or dropped calls" and network outages.[6] These defects represent different versions of the same issue (that is, a customer's complete inability to connect a call); measuring only this one issue, however important, would fail to capture a whole range of network attributes that contribute to the subscriber's experience. In other words, capturing data on the number of total call failures may be valuable as a single data point, but measuring a much broader range of performance indicators is essential to determining whether the IP transition presents an acceptable replacement for TDM wire centers at this time.

These tests will not, for example, capture the experience of a subscriber whose call has been connected but who is experiencing an unacceptable level of noise on the line. Similarly, a call that is merely connected still represents a failure if there are problems related to call routing, customer premises equipment, sound quality, or volume.

As a starting point, we believe the testing regime and reported test results should capture parameters including:[7]

1. Network capacity
2. Call quality
3. Device interoperability
4. Service for the deaf and disabled
5. System availability
6. PSAP and 9-1-1
7. Cybersecurity
8. Call persistence
9. Call functionality

---

[6] "AT&T Trial Operating Plan," Section 6.5.4, Quarterly Defects Per Million (DPM) Report (at 54) and Section 6.5.6, Quarterly IP Network Outage Report (at 55).

[7] These are the parameters we put forth in our report, "A Brief Assessment of Engineering Issues Related to Trial Testing for IP Transition," prepared for Public Knowledge and filed as part of this proceeding on January 13, 2014.

10. Wireline coverage

We reiterate these parameters because, especially in light of AT&T's proposal, we strongly recommend that the Commission require a broad and effective trial.

## Test Results

Further, merely positing testing parameters is not, in itself, sufficient. AT&T should also be proposing what it believes to be appropriate pass/fail thresholds for each test. This shortcoming compounds the inadequacy of AT&T's proposed measures of call completion and network outages; merely measuring these occurrences—or any other defects—does nothing to establish whether the results are acceptable.

Establishing standards for test results is a typical aspect of the Commission's trials. The Office of Engineering and Technology (OET) maintains a series of measurement procedures for parties "making measurements to show compliance with the FCC rules."[8] Similarly, any number of established engineering testing standards could be legitimately applied here.

The Commission should require a revised proposal from AT&T that includes a defensible and scientifically sound basis for proposing pass/fail thresholds—just as the company assuredly applies to its internal testing prior to product roll-out. These thresholds, if deemed acceptable, should then be applied to all of the testing that the Commission establishes as the minimum requirement for these trials. In the absence of such thresholds, the purpose of the initial round of tests must be to determine how different levels of performance correspond to different thresholds—and those levels should then become the Commission's standards.

## Control Group

Assuming that the testing regime captures a sufficient range of parameters, that the test locations are sufficient in number and distribution, and that the test results are measured against an established standard, a successful trial will also require a proper control group.

AT&T's proposal for selecting control groups is acceptable, with some caveats. The company proposes the following: "For each trial wire center, AT&T will select a nearby wire center to

[8] "Measurement Procedures," Office of Engineering and Technology, Federal Communications Commission. http://transition.fcc.gov/oet/ea/eameasurements.html.

serve as a 'control group' to ensure that both the trial and control wire centers are subject to similar weather conditions, traffic congestion, and other network-effecting events."[9]

Ideally, the control group and the trial group would be in the same wire center. If they are not in the same wire center, then the control group wire center should be in the same region—the same city or county—as the trial wire center, and all of the important technical and demographic characteristics of the control wire center must clearly be the same as the trial wire center. These characteristics would include:

1) Similar age of plant (both in range and average)
2) Similar length of loop
3) Similar level of aggregation with digital loop carriers
4) Similar penetration of fiber
5) Similar breakdown between single-family homes and multi-dwelling units, and between residential and business connections
6) Similar number of passings served
7) Similar level of staff training

[9] "AT&T Trial Operating Plan," Section 6.5.4, Quarterly Defects Per Million (DPM) Report (at 54)

## 3. IP Transition Testing Requires Expert Agency or Third-Party Involvement

The second deficiency in AT&T's response is the lack of expert agency involvement. AT&T proposes a testing scenario in which it is solely responsible for testing, analysis, interpretation, and reporting of results. The testing and certification process must be broader than that. It should include the involvement of the Commission as the expert agency—or some other independent third party that can act as the Commission's agent in certifying the results.

At a basic level, the members of the public who are under test must be able to submit their legitimate complaints to the Commission or the third party, just as local cable subscribers have recourse under their local government's franchise agreements to submit complaints about service deficiencies. Those complaints should become part of the public file related to the network operations, and should be available for review and analysis.

The availability of complete details on each complaint filed by a test subject is an important point here. AT&T proposes the following:

> "AT&T will provide a summary of trial-specific customer issues. Data will be collected from: direct customer input to trial-specific web sites, calls to AT&T customer care centers and issues identified by AT&T field representatives having customer contact. AT&T will classify issues in a way that is reflective of the type of issues customers are describing, such as: accessibility, product availability or product performance."[10]

In our experience, however, nuanced customer complaints and even positive feedback that are filtered through a provider's analysis are typically truncated and homogenized to the point of irrelevance; in a trial designed to capture the intricacies of customer experience with IP technology in a whole range of applications and settings, bundling all customer comments together in overly broad categories could render those "customer issue reports" useless.

The purpose of these trials is to inform the Commission's decision about how to handle the transition. This will require a suitable control group and an independent entity empowered to pass judgment on the test results. For any test that is objectively determinable, the Commission or its independent agent, with input from the public and adequate data, must be able to decide whether a variation in the test results is significant enough that it constitutes an impairment.

---

[10] "AT&T Trial Operating Plan," Section 6.5.3, Quarterly Customer Issues Report (at 53).

## 4. Commission Must Ensure Transparency of Testing and Peer Review of Results

The third deficiency in AT&T's response is that it fails to commit to either transparency in the testing or the availability of the test results for peer review. Accordingly, we recommend that, once the Commission has established an adequate range of testing to be conducted, it establish a report format for all data to be collected. As in other aspects of this testing proposal, we look forward to AT&T's recommendations on the reporting requirements.

The testing data should then be available to others in the industry and public so the results can be reviewed, the testing refined, and the entire process applied to the important task of developing a nationwide strategy for IP transition.

Because this is a test, not a product launch, transparency of the collection process and transparency of data is essential. The testing regimen must not be guided by concerns over a competitor getting access to AT&T's data; rather, it must be treated as a scientific test—one in which a broader community of stakeholders must be able to evaluate the testing process and validate the results.

If the process is in fact a scientific test, it should include:

- A question or purpose (e.g., will the proposed systems reliably transition the functionality of the legacy phone system with the same or improved performance?),
- A hypothesis (e.g., the proposed system will accomplish the digital transition within the framework required by the FCC),
- A prediction (e.g., the tests, when conducted in particular customer locations, will provide the following results within the following tolerances),
- A detailed step-by-step procedure,
- A tabulation and archiving of data in raw form (without cleaning or eliminating data that is not consistent), and
- An analysis of the data.

Third parties should be able to participate in or observe the tests, have access to the raw data, and be able to understand the analysis well enough to replicate the tests and the results.

Consistency with scientific method and transparency of the process will enable the public to have confidence in the process, will identify the main challenges in the migration as it proceeds, and will provide guidance to the many telecommunications operators who will need to make the transition.

**Before the**

**Federal Communications Commission**

**Washington, D.C. 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | WC Docket No. 12-353 |

**Comments of AARP**

**March 31, 2014**


David Certner
Legislative Counsel and
Legislative Policy Director
Government Affairs
AARP
601 E Street, NW
Washington, DC 20049

Trevor R. Roycroft, Ph.D.
Economic Consultant

## Table of Contents

## Summary

AARP respectfully submits these Comments for the FCC's consideration, and thanks the Commission for the opportunity to participate in this important proceeding regarding the transition to broadband networks. AARP is keenly interested in this technology transition. Telecommunications technologies play a growing role in the lives of older Americans, i.e., those in 50+ households. The impact of broadband technologies is only beginning to be felt. The pervasive availability of high quality and affordable broadband connections—both fixed and mobile—can enable new applications and services, including new methods of delivering healthcare and support for independent living.

### Overview of AT&T's Wire Center Trial Plan

AARP finds points of agreement with AT&T's Wire Center Trial Plan (hereinafter "AT&T's Plan").[1] AARP believes that the selection of the Kings Point wire center has the potential to appropriately allow the evaluation of the impact of technology transition on older Americans, and the Carbon Hill wire center will allow for the consideration of some issues associated with rural areas. AARP also believes that AT&T's Plan contains a proposal with some promising elements for outreach to the disability community. AARP finds that AT&T's Plan acknowledges that it is critical to leave no customers unserved as a result of the technology transition, and AARP looks forward to working with AT&T and the Commission to guarantee that all customers have access to affordable, reliable, and high-quality broadband networks following the technology transition.

[1] AT&T's submission consists of a narrative document titled "AT&T Proposal for Wire Center Trials," and a more detailed document titled "AT&T Wire Center Trial Operating Plan." AARP will refer to the former as the "AT&T Proposal," and the latter as the "AT&T Plan."

However, the problems with AT&T's Plan are many, and AARP cannot recommend that the Commission approve the plan until its significant problems are corrected.[2] Key deficiencies of AT&T's plan include:

- AT&T indicates that the Wireless Home Phone service that it proposes to offer as a replacement has performance shortfalls that it is seeking to remedy, indicating that the proposed technology fixes will be available at an unspecified later date. Thus, AT&T cannot at this time inform the Commission of the performance of the technology that it proposes will replace TDM-based services in the trials. Unknown factors include the level of performance associated with 911 services, alarm systems, and medical monitoring devices.[3]
    - AT&T also indicates that it will not commence Phase I of the trials until the performance shortfalls associated with the Wireless Home Phone service are remedied. This may suggest an extended delay associated with the start of the trials, making AT&T's application untimely.

- AT&T's Plan overlooks the provisioning of backup power at cell sites. Given the reliance of AT&T's Plan on wireless-only alternatives, network reliability will decline from current levels during the trials.

- AT&T's Plan will eliminate wireline-based DSL broadband for customers in the trial wire centers. However, *AT&T does not even specify the wireless "catch product" for current DSL customers.*[4] Furthermore, to the extent that current DSL customers are migrated to wireless data plans, AT&T provides no projections of the price impact of the elimination of DSL service. It is clear, however, that wireless data plans are measured-rate and more costly than DSL-based wireline broadband.

- AT&T's Plan does not adequately address the impact of the technology transition on prices and customer bills for non-DSL customers. The Commission should require any trial proposal, including AT&T's, to provide information that would enable a clear understanding of the price impact on representative customers.

- AT&T selected the trial wire centers to be located in states where state authority over matters associated with the trials has been eliminated.[5] As a result, these trials will not

[2] AARP is aware that AT&T filed an *ex parte* presentation on March 26, 2014 that provided information in response to FCC Staff questions. Based on AARP's preliminary review of the heavily redacted document filed by AT&T, it appears that the FCC Staff has raised questions similar to some of the questions contained in these comments. AARP is seeking to gain access to the confidential version of the *ex parte* response, and may address that information in reply.
[3] AT&T indicates that it will have that information at some point in the future. See AT&T Plan, p. 15.
[4] AT&T Plan, Exhibit E, "DSL Direct" and "DSL Line Share" sheets.
[5] "Frank Simone, AT&T assistant VP—federal regulatory, said that state regulatory requirements 'actually was one of the questions we were considering as we decided' which locations to choose for the proposed trials." "Mr. Hultquist said that AT&T will be meeting with state officials in Florida and Alabama. However, he added, 'we do

reflect the experience in any state where state authority over matters associated with a trial, such as carrier of last resort obligations, is ongoing.

  - The demographics of the trial areas are more white and less Hispanic than the national average.
  - The trials do not include any critical national security or public safety locations, such as those serving Department of Defense or Federal Aviation Administration facilities.

- Customer notice and outreach proposed by AT&T are inconsistent across the two proposed trial wire centers.
- AT&T's Plan does not include adequate data reporting, nor does it specify the "control" wire centers required by the Commission in the *Trials Order*.

As discussed above, AT&T's plan does not contain important information that is required by the *Trials Order*. As a result, the parties have been placed in the awkward position of being asked to respond to an incomplete plan—with the actual details emerging at unspecified later dates. If the Commission does not reject AT&T's Plan, AARP believes that this Commission must amend the timeline associated with the *Trials Order* to enable further comment on details of AT&T's plan as those details become available.

**Recommendations if AT&T's Plan is not rejected outright by the Commission**

Given the numerous problems associated with AT&T's Plan, AARP makes the following recommendations. However, it should not be construed that by making these recommendations that they provide a sufficient remedy for the problems outlined above, and discussed below in more detail. There are simply too many "known unknowns" at this point for AARP to endorse AT&T's proposal. However, should the Commission move forward with the plan:

- AT&T should be required to remove the confidential designation of the dates associated with the trials. AT&T should also remove the confidential designation of any "confidential" information that AT&T has discussed publicly. In general, AT&T should strive to be as transparent as possible regarding information associated with the trials.

not believe that these trials require any filings in these states,' given their statutory and regulatory frameworks." "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.

- The Commission should utilize an independent third-party to verify the performance of AT&T's Wireless Home Phone service prior to granting final approval for any trial, and the Commission should confirm that there is no service quality degradation associated with the use of that platform, as required by the *Trials Order.* This includes ensuring that backup power is properly provisioned at cell sites involved in the trials.
- For any wireless replacement service included in a trial, the Commission should verify, using an independent third-party, that wireless signal strength is sufficient for indoor coverage throughout the trial areas. This is especially important given the more complex topology associated with the Carbon Hill wire center.
- Before authorizing any trial that involves wireless services, the Commission must establish that AT&T's wireless service operates during commercial power outages in a manner similar to the current level of reliability of TDM services. Given that AT&T indicates that the *wire centers* that deliver TDM services involved in these trials currently have fixed backup generators, as well as battery backup,[6] the antenna located in the cell sites involved in the trials should be similarly provisioned to ensure that wireless services deliver similar levels of reliability.
- AT&T should explain to the Commission whether its Wireless Home Phone service is an IP-based service.
- AT&T should be required to identify the price impact, based on representative current customer bills, of the services to which AT&T proposes to migrate customers during the trials. The Commission should not approve the trial unless there are no increases in customer bills, or decreases in service functionality.
- AT&T should be required identify the catch product for DSL customers who will be migrated to wireless broadband alternatives during the trial. The Commission should not approve the trial unless there is no increase in the bills of former DSL customer's broadband bills, or decreases in service functionality resulting from the wireless broadband migration envisioned by AT&T.
- The Commission should require AT&T to better explain its plan for the four percent of living units in the Carbon Hill wire center, customers currently served by AT&T's TDM platform that AT&T indicates that it cannot make a "business case"[7] to serve with either its wireline or wireless options. Under no circumstances should these customers lose service as the result of a trial.
- AT&T's Plan calls for the sunset of services once the trials begin. The Commission should not accept AT&T's sunset timeline as submitted, and should remind AT&T that any initial grant of 214 authority for interstate services is temporary.[8]
- AT&T should be required to use a uniform customer-outreach approach in trial wire centers, not the disparate approach described in its plan.
- AT&T should be required to provide customer notice that clearly explains the price impact of participating in a trial, as well as any differences in service level. Customers should be informed that as part of the trials, AT&T intends to seek relief from Eligible

[6] AT&T Plan, p. 32.
[7] "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.
[8] *Trials Order*, ¶79.

Telecommunications Carrier obligations, and that this could translate into AT&T refusing to serve customers in the future.

- Prior to granting final approval to AT&T's Plan, AT&T should be required to identify the proposed "control" wire centers, and should be required to provide side-by-side comparisons of the characteristics of the control and trial wire centers, including their service quality performance over the twelve months prior to AT&T's application.
- The Commission should modify the data collection and reporting component of AT&T's plan—as presented, this aspect of AT&T's plan is unacceptable. Some of the improvements the Commission should require include:
    - AT&T should provide real-time information regarding the progress of trials, and summarize that information in monthly, rather than quarterly, reports.
    - AT&T should report performance information based on customer class.
    - AT&T should provide comparable metrics for the performance of wired and wireless technologies; if IP- and non-IP services are deployed in any trial, their performance should also be reported in a manner consistent with side-by-side comparisons of performance.
    - Detailed data on individuals with disabilities should be collected during the trials.
    - Customer surveys in the trial and control areas should be administered by independent third parties.
    - Voice quality should be verified by independent third-party testers.
    - All service outages associated with trials should be reported. AT&T's proposal to report only those that meet the NORS thresholds is unacceptable.

AARP will now turn to a more detailed review of AT&T's proposal.

## Introduction

As noted by the Commission in its recent order authorizing AT&T's technology trials, predictable benefits will arise from a properly implemented technology transition:

> Modernizing communications networks can dramatically reduce network costs, allowing providers to serve customers with increased efficiencies that can lead to improved and innovative product offerings and lower prices.[9]

This critical observation justifies moving forward with trials. However, it is also reasonable to take steps to ensure that the outcomes of the trials are consistent with the expectation of improved and innovative product offerings and lower prices. While innovative services may result from technology trials, it is also reasonable to expect that customers should not face higher bills for the use of a new technology—consumers use telecommunications services to satisfy basic needs, and the opportunity to use a new technology platform may be of little consolation if higher bills result from satisfying the same need. Consumers should experience lower prices, or at a minimum, not face price increases. Similarly, service quality must at least be maintained at pre-trial levels. While network costs will undoubtedly be reduced as a result of the IP transition, the availability of benefits to consumers will depend both on market forces, which vary by geography and customer class, and on the actions of this Commission and other regulatory bodies. This Commission must support only those trials that are consistent with the reasonable expectations identified by the Commission associated with service improvements, service quality, and prices. The Commission should also require that trials are consistent with the regulatory framework outlined in the *Trials Order.*

[9] *In the Matter of Technology Transitions AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, Connect America Fund, Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services And Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Numbering Policies for Modern Communications*, GN Docket No. 13-5, GN Docket No. 12-353, WC Docket No. 10-90, CG Docket No. 10-51, CG Docket No. 03-123, WC Docket No. 13-97, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, January 31, 2014, ¶2. Hereinafter *Trials Order.*

## The *Trials Order's* regulatory framework

Based on its review of the *Trials Order,* AARP believes that any applicant must provide sufficient information to the Commission for findings to be made on the key components of the regulatory framework outlined in that order. The *Trials Order* identifies numerous factors that the Commission indicates must be part of an experiment. Components of the regulatory framework developed in the *Trials Order* include (but are not limited to): continuation of reliable 911 services;[10] a demonstration of the security of the IP-based infrastructure; [11] the ability for the Commission to evaluate any changes in the speed, latency, or jitter of the Internet access services offered in the experiment area, and any differences in the price or usage capacities associated with those offerings;[12] compliance with the truth-in-billing rules, which are intended to address both slamming and cramming, and the Commission's other anti-slamming rules;[13] an evaluation of key attributes of IP-based services, such as network capacity, call quality, device interoperability, service to persons with disabilities, system availability, 911 and PSAP service, cybersecurity, call persistence, call functionality, and service coverage;[14] and the reporting of high-quality data, including a "control group" by which to evaluate the performance of the "experimental group."[15]

Should the applicant for a trial not provide the Commission with sufficient information regarding the proposed trial's compliance with these and other requirements, AARP believes that the Commission must reject the application. As discussed below in more detail, AARP believes that AT&T's application falls short of the requirements contained in the *Trials Order.*

[10] *Trials Order,* ¶39.
[11] *Trials Order,* Appendix B, ¶19.
[12] *Trials Order,* Appendix B, ¶33.
[13] *Trials Order,* Appendix B, ¶41.
[14] *Trials Order,* ¶74.
[15] *Trials Order,* ¶74.

### AT&T's confidentiality claims are inappropriate

The Commission summarized the purpose of this proceeding in the *Trials Order* as follows:

> The proceeding we initiate today is designed to position all the players – innovators (including those in existing lines of business), legacy service providers and manufacturers, government regulators and the general public – to prepare for, maintain, and facilitate the momentum of technological advances that are already occurring.[16]

Given the potential impact of the technology transition, it is important for this Commission to be informed by a broad cross-section of interested stakeholders. The general public will be affected by the details of how the TDM-to-IP transition will unfold, and the public has the right to know relevant details associated with technology trials. The *Trials Order* also specifies that for consumers, participation in the trials should be voluntary.[17] This too suggests that consumers should be fully apprised of the structure and details of a trial, so as to enable informed choice. The AT&T Plan, however, is less than transparent on some basic issues. By alleging confidential status for foundational information associated with the trials, AT&T has undermined the public's ability to participate in this proceeding, and has also hindered all interested parties' ability to fully understand AT&T's proposal. Some of AT&T's claims regarding the confidential nature of material are puzzling to AARP. For example, AT&T alleges that the proposed dates associated with the availability of solutions for the current shortcomings of its Wireless Home Phone service are confidential. This is a key bit of information that the general public would benefit from in understanding the timing of the transition, and the potential for obsolescence of existing technologies. Even more troubling is the alleged confidential nature of the "Consumer Timeline," which identifies the dates on which the trials will commence, and the dates on which services will be grandfathered and/or removed from service.[18] Consumers must ultimately become aware of these timelines, and it is not clear why AT&T has refused to make this

[16] *Technology Trials Order*, ¶2.
[17] *Technology Trials Order*, ¶6.
[18] AT&T Plan, Exhibit D, "AT&T's Proposed Service Transition Timeline."

information available up front. By cloaking this proceeding in claims of confidentiality, AT&T has undermined this Commission's ability to develop the record. AARP recognizes that certain information may be competitively sensitive and thus deserve confidential treatment. However, some of the information over which AT&T has asserted confidential status stretches any reasonable interpretation of the nature of proprietary information, and undermines the Commission's objectives associated with technology trials.

## AT&T's Plan does not Adequately Address Current Limitations of its Wireless Home Phone Service

In the *Trials Order*, the Commission expressed its concern regarding potential deleterious effects of technology transition on existing technologies that rely on the TDM platform:

> For proposed network changes, we expect the Commission should be able to evaluate in detail the impact of those changes on devices and services that are enabled by the provider's legacy network, even if the provider itself does not market or control those devices or services. For example, many customers have purchased and use fax machines, burglar alarms, medical monitoring devices, credit card readers, and other devices and related services that rely on the functionality of legacy copper networks. We will be interested to learn how a proposed experiment would affect such devices and services, including an enumeration of the types of devices and services that may not work equivalently well during the experiment.[19]

AT&T provides a table that purports to report "Device and Service Application Compatibility."[20] At first glance, AT&T's representation appears to show that those consumers who are migrated to AT&T's Wireless Home Phone solution will experience service that is virtually identical to TDM-based service. For AT&T's Wireless Home Phone, AT&T's table places a "Y" for "yes"

[19] *Trials Order*, Appendix B, ¶5.
[20] AT&T Plan, p. 14.

Table 1: Restatement of AT&T's Summary of Wireless Home Phone Service Performance (Yellow indicates cells where AT&T's table said "Y" but really actually reflect current incompatibility.)

| Application/Devices | TDM Voice | U-verse Voice | Wireless Home/Business Phone | Wireless Home/Business Phone with Internet |
|---|---|---|---|---|
| E-911 with Address | Y | Y | N | N |
| Alarm Monitoring | Y | Y | N | N |
| Medical Alert | Y | Y | N | N |
| 411 | Y | Y | Y | Y |
| DVR Services | Y | Y | N | N |
| Credit Card/Merchant Services | Y | Y | N | N |
| 800 # Service | Y | N | N | N |
| 3rd Party Pay Per Call | Y | N | N | N |
| Calling Cards using IVR (8xx platforms) | Y | Y | Y | Y |
| Dial-around calls | Y | N | N | N |
| Abbreviated Dialing Codes | Y | Y | Y | Y |
| Live Operator via "0" | Y | N | N | N |
| Collect Calls | Y | N | N | N |
| Fax | Y | | N | N |
| Dial-up Internet | Y | | N | N |
| Correctional Facility Ankle Bracelets | Y | Y | N | N |
| TTY-Assistive Technology | Y | Y | N | N |
| Elevator Phone Service | Y | N | N | N |

to confirm that its Wireless Home Phone service will provide functionalities associated with E911, Alarm Monitoring, Medical Alert, TTY-Assistive Technology, and Credit Card/Merchant services. However, in a series of footnotes to the table entries, AT&T indicates that in most cases, the compatibility is an *anticipated enhancement* that will be introduced at some unspecified date in the future.[21] In Table 1 above, AARP corrects AT&T's table, and has highlighted the cells showing the service characteristics where AT&T's original table might be interpreted as suggesting compatibility. For those service characteristics, consumers will, absent equivalent solutions offered by AT&T, face service limitations due to AT&T's Plan.

AARP does not believe that AT&T's Plan should be approved by the Commission until it is clear that the functionality specified in the *Trials Order* is available, and is robust as that associated with TDM-based technology. For example, AT&T states:

> AT&T *is developing upgrades* to the 911 capability of Wireless Home Phone by adding an ALI function to emulate the customer's experience with wireline TDM service. To emulate the wireline 911 experience in a mobile offering, *we are developing enhancements* that will allow AT&T to send MSAG information to the appropriate PSAP while the device is at a registered service address.[22]

However, in the *Trial Order*, the Commission states:

> In the 911 Network Reliability R&O, the Commission adopted rules requiring "Covered 911 Service Providers" to certify annually that they have implemented certain industry-backed best practices or taken reasonable alternative measures to provide reliable 911 service. Applying this definition to proposals for experiments, we expect each applicant that provides 911 service as defined in the 911 Network Reliability R&O to meet these requirements throughout the duration of the experiment. To the extent an applicant aims to demonstrate adherence to the certification elements by implementing an "alternative measure," it will be important for the Commission to understand the measure and its reasonableness given the parameters of the experiment.[23]

[21] But not in all cases. For example, consumer 800 services will not be possible with AT&T's Wireless Home Phone service. AT&T Plan, p. 15. Whether elevator phone service will be addressed at all is not clear given that AT&T indicates that it believes that there are no elevators in the trial wire centers. AT&T Plan, p. 14.
[22] AT&T Plan, p. 21.
[23] *Trials Order,* Appendix B, ¶14.

In footnote 10 to this paragraph, the Commission notes "The term "Covered 911 Service Provider" is defined to include any entity that provides an element of 911 service (e.g., 911 call routing, ALI) directly to a PSAP, notwithstanding the technology used to provide the service." Thus, at this time, AT&T cannot explain to the Commission how its Wireless Home Phone service will comply with these requirements. As a result, AT&T's Plan should not receive final approval until such a demonstration can be made, and parties must have the ability to comment on the technology solutions that AT&T ultimately reveals.

As a result of AT&T's proposal to rely on wireless technology for a substantial portion of the trial population, and due to the lack of details regarding the functionality of the wireless replacement, AARP has significant concerns regarding AT&T's Plan. Absent unspecified technological fixes that AT&T admits are needed:[24]

- AT&T's Wireless Home Phone service will jeopardize public safety because it (1) does not satisfy the 911 conditions of the *Trials Order*, (2) is incompatible with medical alert systems and security systems, (3) relies on the less reliable wireless network, and (4) has embedded geographic information that would not "update" were customers to bring their Wireless Home Phone devices with them when they relocate to other residences.

- AT&T's Wireless Home Phone service is incompatible with a host of other applications and technologies that current ride "over-the-top" of the TDM-based network.

- AT&T's Wireless Home Phone service is not compatible with TTY services, and will thus adversely affect individuals with disabilities.

AARP does not believe that this is a reasonable path forward for the technology trials. Before any trial is approved, AT&T should demonstrate, and the Commission should independently confirm, that the solutions to the current limitations of AT&T's Wireless Home Phone service are technologically viable, and do not result in service degradation.

[24] AT&T Plan, p. 15.

### AT&T's plan will have a negative impact on network reliability

With regard to network reliability, the *Trials Order* states:

> We presume that experiments will maintain current levels of network reliability, including the ability to place phone calls and to function during commercial power failures, and maintain security from external attack.[25]

AT&T fails to address potential differentials in reliability associated with the migration of consumers from TDM-based wireline services to wireless services. With regard to reliability, AT&T's Plan indicates that as a "Covered 911 Service Provider," AT&T will comply with the FCC's *911 Reliability Order*.[26] However, the *911 Reliability Order* only addresses a subset of wire centers, and *does not address the facilities that feed those wire centers*. Given that making a wireless call, including a call to 911, requires that cell sites are capable of carrying a call during commercial power outages, the reliability of AT&T's Wireless Home Phone service may be compromised due to the lack of sufficient backup power at cell sites. AT&T indicates that its Wireless Home Phone product has battery backup in the customer device,[27] however, AT&T fails to address the issue of backup power at the antenna serving the cell sites in the trial areas.[28] Given that AT&T is proposing to provision customers in both trial wire centers with wireless-only alternatives, with 55 percent of the Carbon Hill wire center having only the wireless option,[29] AT&T's failure to address wireless antenna backup power issues in the trial wire centers is a fatal flaw.

[25] *Trials Order*, ¶47.
[26] See, *Improving 911 Reliability; Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket Nos. 13-75, 11-60, Report and Order, FCC 13-158, Dec. 12, 2013. Hereinafter, *911 Reliability Order*.
[27] AT&T Plan, p. 33.
[28] AT&T does mention its backup power strategies associated with its IP-based U-Verse product, noting that the more distributed power arrangements in last-mile IP networks requires battery backup and standby generator capabilities. AT&T Plan, p. 33.
[29] "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.

Before authorizing any trial that involves wireless services, the Commission must establish that AT&T's wireless service operates during commercial power outages in a manner similar to the current level of reliability. Given that AT&T indicates that the TDM-based wire centers involved in these trials currently have fixed backup generators, as well as battery backup,[30] the cell sites involved should be similarly provisioned to ensure that wireless antenna reliability delivers reliability comparable to the current wireline technology.

### Wireless-only service raises important questions about service quality and coverage areas

AT&T's Plan includes a proposal for the migration of customers in both wire centers to wireless-only alternatives, and indicates that a majority of living units in Carbon Hill (55 percent) will only be served by AT&T's wireless alternatives.[31] Based on review of topographical maps of the area, the terrain in the Carbon Hill area appears to be challenging, thus potentially presenting problems with the delivery of wireless services inside residential structures. AARP has prepared Attachment A, which shows the terrain characteristics in the area around Carbon Hill.[32] As can be seen in Attachment A, the terrain is generally flat near the town of Carbon Hill, but is characterized by steep hills and valleys outside of the town center. This suggests that wireless reception may be compromised for some customers, even if they are in AT&T's ostensible wireless footprint. Measures must be taken to ensure that the wireless alternative is available indoors for all participating customers during the trial. To that end, third-party verification of

[30] AT&T Plan, p. 32.
[31] "Mr. Hultquist said that only about 20% of the living units in the Carbon Hill wire centers subscribe to AT&T's POTS service. Of the 5,000 living units in the wire center, 41% would have a choice of either wireline IP service (U-verse Voice-over-IP) or wireless service (Wireless Home Phone) from AT&T under the proposal, while 55% would only have a wireless 4G LTE option. There is "no business case" for reaching the remaining 4% by any means other than POTS lines, he said." "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.
[32] While the geographic area shown in Attachment A does not match the Carbon Hill wire center boundaries exactly, AARP believes that it is a reasonable representation of the terrain conditions within that wire center. The rectangle containing the crossing lines centered in the town of Carbon Hill in Attachment A is about 170 square miles. According to maps provided by AT&T, the Carbon Hill wire center is 172 square miles, which is approximately centered at the town of Carbon Hill. AT&T Plan, p. 4 and Exhibit A.

service availability should be utilized by the Commission. Customer locations should be tested to ensure that wireless signal strength is sufficient indoors, and that voice and data performance is consistent with the Commission's objectives. In a properly designed trial, it should not be incumbent on customers to be the guinea pig with regard to coverage, and then face service quality problems, placing them in a situation where their service fails to perform in a manner similar (or superior) to the wireline TDM-based alternative. Rather, AT&T should deliver service to customers *at the start* of any trial that is consistent with the Commission's presumptions associated with network reliability.[33] That is, that there is no reduction in the overall quality of service[34] should be established prior to *the start of any trial.*

The Commission has experience with consumer reaction to a proposed migration to an inferior wireless-based offering from the Fire Island proceeding. Consumers in that area provided compelling reports of the problems that Verizon's technologically-similar Voice Link service generated. While the New York Public Service Commission received more than 1,700 public comments on Verizon's proposal,[35] the two provided below are representative:

> I am writing this in regards to my Verizon landline telephone. I understand Verizon wants to replace landlines with Voice Link. I live in an area in South Salem NY, for over 40 years, where cell phone reception is very poor and is very unreliable. And telephone thru my cable company goes quickly out and unusable even when there is a minor storm and a light wind. I have a special needs daughter with multiple handicaps and serious seizures and our Verizon telephone is our lifeline out to call for help especially when there are serious storms and all power seizes and cable & cell phone is also out. Our verizon (*sic*) telephone line has always worked and been there for us even thru the worst of storms we have been thru in the last couple years and were without power for more than a week. I just want to say that I am quite afraid to even think what I would do in another storm without my Verizon landline. It makes me fearful to think about it. Please do not let Verizon do away with our landlines....PLEASE!! Thank you.
>
> Sincerely, Marlene Welsch

[33] *Trials Order*, ¶47.
[34] *Trials Order*, ¶57.
[35] http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=13-c-0197&submit=Search+by+Case+Number

> I am writing to state my objections to substituting Voice Link wireless-based service for the current Verizon landlines.
>
> Cell service is very poor at our home. We have to go outdoors to use our cell phones. Verizon has no plans to install FIOS in our area because of the distance between homes. By losing landline phone connection, we would be at serious risk in emergency situations.
>
> Jean Lewis

There is every reason to believe that the concerns expressed by consumers in Fire Island reflect general consumer attitudes toward their telecommunications services. AARP also strongly believes that the path forward in technology transition must involve the availability of affordable wireline broadband services. Verizon ultimately acknowledged the public outcry, and *invested* in fiber-based broadband services for the affected areas in New York.[36] This model for replacement of TDM-based services is far superior to a mandated migration to wireless services which are known to be inferior to existing wireline based service—whether they are based on either TDM or IP.

### AT&T does not explain whether Wireless Home Phone service is an IP-based service

While AT&T's Plan purports to deliver "TDM to all-IP trials,"[37] AT&T does not describe Wireless Home Phone service as an IP-based service. Rather, according to AT&T, the Wireless Home Phone service is a CMRS service, utilizing the same platform that provides current AT&T wireless offerings:

> AT&T Mobility's Wireless Home Phone service is a Commercial Mobile Radio Service (CMRS). Wireless Home Phone uses a mobile base station device to facilitate the use of AT&T's CMRS voice service in the home by allowing a subscriber to connect traditional customer premises equipment (i.e., touch-tone, corded or cordless home telephones) to the Wireless Home Phone base station and thereby allow connectivity to AT&T's

[36] http://newscenter.verizon.com/residential/news-articles/2013/09-10-a-fiber-optic-network-for-fire-island/
[37] AT&T Plan, p. 1.

> licensed spectrum—*just like any of AT&T's other CMRS voice network-compatible devices*.[38]

To deliver IP-based voice service wirelessly, AT&T and other wireless carriers are pursuing "voice over LTE" (VoLTE). AT&T had planned to launch VoLTE in 2013, but has faced delays.[39] Key to the transition to VoLTE is device compatibility,[40] and like all other non-IP-based equipment, the existing AT&T Wireless Home Phone base station device will need to be compatible with VoLTE. If it is AT&T's plan to deploy an IP-based version of its Wireless Home Phone service in the trial, it should make this clear. As submitted, AT&T's plan makes no mention of the current availability of IP-based wireless devices for its Wireless Home Phone service. If it is the case that AT&T's plan is to simply provide customers with a non-IP CMRS-based voice service, AT&T Plan's will only test again customer attitudes to a migration to CMRS-based wireless-only service.

## AT&T's Plan Undermines Broadband Availability and Competition

While AT&T indicates that it is committed to deploying next-generation broadband facilities, the trials will actually result in wireline broadband facilities being removed from service:

> AT&T cannot economically extend its next generation wireline and wireless broadband footprint to reach every corner and customer across its 22-state wireline service area, which is the case in the trial wire centers as well. As discussed above, AT&T designed these trials to ensure that they will provide an opportunity to flesh out the most challenging issues raised by the IP transition. The Carbon Hill wire center, in particular, presents geographic, economic and technical challenges. It is a sparsely populated area located in rural Alabama. These factors make it uneconomic for AT&T to extend its next generation wireline broadband network and services to all existing customer locations in Carbon Hill.[41]

[38] AT&T Plan, p. 23, emphasis added.

[39] "AT&T admits to VoLTE delay, won't offer new launch date," FierceWireless, February 26, 2014. http://www.fiercewireless.com/story/att-admits-volte-delay-wont-offer-new-launch-date/2014-02-26

[40] "AT&T's VoLTE Phones Start Trickling Out," LightReading, January 13, 2014. http://www.lightreading.com/mobile/volte-rich-communications/atandts-volte-phones-start-trickling-out-/a/d-id/707254

[41] AT&T Plan, p. 43.

As discussed above, for 55 percent of locations in Carbon Hill,[42] areas where it cannot satisfy a business case to extend U-verse, AT&T's solution is to offer an unspecified wireless broadband services in both trial wire centers, thus removing DSL-based broadband services.[43] In its supporting materials (Attachment E) AT&T does not reveal the wireless "catch product" for current DSL customers who would be migrated to wireless broadband as a result of the trial.[44] The Commission should not approve AT&T's proposal unless AT&T identifies the "catch product" for DSL customers in areas where AT&T indicates that it will not extend its U-verse service, and establishes that it is superior or equivalent to existing DSL service.

The Commission should also note that AT&T's DSL customers could today choose to utilize wireless broadband alternatives, however, they have not done so. This indicates a consumer preference for wireline broadband service prices and performance characteristics. As will be discussed further below, given the price associated with wireless broadband alternatives, it is not surprising to find that DSL is still preferred by some consumers.

As a general proposition, broadband availability and competition will suffer as a result of AT&T's trial proposal. While AT&T indicates that "Our 4G LTE network will provide broadband at speeds up to 12 Mbps – significantly more robust than any of our legacy wireline DSL products,"[45] the Commission is well aware that wireless broadband services have characteristics that can also result in a broadband experience that is inferior to wireline alternatives. The Commission has noted the following regarding wireless broadband services:

> [O]verall mobile broadband network service quality experienced by consumers may vary greatly with a number of real world factors such as the service provider's received signal

[42] "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.
[43] AT&T Plan, p. 43.
[44] AT&T Plan, Exhibit E, "DSL Direct" and "DSL Line Share" sheets for Carbon Hill and Kings Point.
[45] AT&T Proposal, p. 6.

> quality, cell traffic loading, and network capacity in different locations as well as the capability of consumers' devices.
>
> For example, the received signal quality is dependent on the service provider's deployed cell site density, low/high frequency radio wave propagation losses, user locations, indoor obstructions and outdoor foliage or clutter, weather, inter-cell interference conditions, and wireless network optimization parameters. The cell traffic loading or demand is dependent on the overall number of concurrent active mobile broadband users sharing the same cell, which in turn depends on user locations, the day of the week, and the time of the day. The capacity of a provider's wireless network is dependent on the deployed mobile wireless technology, sites and equipment, available bandwidth, and enhanced backhaul connections.[46]

AT&T ignores these complex issues regarding the provisioning of wireless broadband. Unless AT&T addresses the issues identified above, these performance shortfalls and problems will result in a permanent degradation in broadband performance in the areas of AT&T's service area where DSL is eliminated and replaced with a wireless alternative. The *Trials Order* noted that "it will be important for the Commission to understand in detail any changes in the speed, latency, or jitter of the Internet access services offered in the experiment area."[47] AT&T has failed to provide the information the Commission has requested, and AT&T's plan should not be approved as a result.

Furthermore, for *four percent* of living units in the Carbon Hill wire center, customers currently served by AT&T's TDM platform cannot be served by either wireline or wireless options.[48] No consumer that currently is served via the TDM-based platform should be left unserved as a result of the technology transition, and AT&T is to be commended for recognizing that this is a key issue that must be addressed prior to TDM retirement:

> AT&T has not yet found a viable replacement service for the remaining four percent of locations (in the Carbon Hill wire center), and still is considering its options for those

[46] *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 11-186, (Terminated), Sixteenth Report, March 21, 2013, ¶293, including footnote 890.
[47] *Trials Order*, Appendix B, ¶33.
[48] AT&T Plan, p. 43.

> living units. AT&T recognizes that it is responsible for ensuring that these customers will have an alternative available to them prior to discontinuing TDM services, and is, in all events, committed to working with the Commission, policymakers, and other stakeholders to ensure that this happens.[49]

The critical overlap between the IP transition and broadband universal service objectives must also be addressed by the Commission. AT&T's plan falls short, however, as it provides only an inferior wireless broadband alternative for a substantial portion of the proposed trial areas, and does not include a plan for serving areas that AT&T now indicates that it finds are no longer economical to serve.[50]

### AT&T fails to disclose the impact of the trials on broadband prices

With regard to broadband, the *Trials Order* also specifies that "it will be important for the Commission to understand in detail . . . *any differences in the price or usage capacities* associated with those offerings."[51] AARP is concerned regarding the impact of any trial on the prices that consumers will pay for broadband. AT&T is proposing to replace TDM-based voice and DSL broadband with wireless alternatives, and is also proposing to offer its U-Verse service to consumers as the TDM replacement. AT&T's Plan does not include any projections of what the cost differences of these alternatives will be (as in information regarding the representative impact on customer bills). Nor does AT&T identify the "catch product" for its current DSL customers who will be migrated to wireless broadband.[52] However, there is ample evidence that wireless broadband has more restrictive usage limits and higher prices. For example, according to AT&T's web site, DSL-based wireline broadband services are available in Carbon Hill, AL for $29.95 or $34.95 per month.[53] AT&T's wireline broadband services currently have data

[49] AT&T Plan, p. 43.
[50] Indeed, AT&T indicates that integral to its plan is the request for relief from Eligible Telecommunications Carrier obligations on the first day of Stage 1 of the Plan. AT&T Plan, p. 39.
[51] *Trials Order*, Appendix B, ¶33.
[52] AT&T Plan, Exhibit E, "DSL Direct" and "DSL Line Share" sheets.
[53] http://www.att.com/shop/en/internet/internet-service.html#fbid=u8uSsS95oFP

usage caps of either 150 GB or 250 GB per month, and AT&T indicates that its average wireline broadband customer uses 21 GB per month.[54] According to information available on AT&T's web site, to purchase 20 GB per month on an AT&T wireless data plan, the consumer would be confronted with a $150 monthly bill.[55] Price increases in general, and certainly of this magnitude, must not be a result of the technology trials, or the IP transition. It is not reasonable to allow the TDM-to-IP transition to leave consumers with an inferior and more costly broadband service offering. As will be discussed further below, AARP also notes that the customer notice letters provided by AT&T make no mention of price changes for any service. Price changes must be clearly revealed to customers so they can decide whether or not to participate in these *voluntary* trials, and to express their concerns regarding the impact of the trials and IP transition.

## AT&T's Plan does not Provide Sufficient Information on the Price Impact for Wireline Voice Services

AT&T plans to offer current wireline customers the opportunity to purchase U-verse service, in areas where that service is available.[56] AT&T will no longer offer stand-alone wireline voice services.[57] AT&T's Plan does not adequately address the impact of the technology transition on prices and customer bills for non-DSL customers. The price data that AT&T does provide for trial "catch products"[58] indicates that wireline voice customers will be offered wireline bundled services that range in price from $41 to $126 per month.[59] However, data on current average bills of current wireline customers is not provided by AT&T, leaving gaps in the record

[54] http://www.att.com/esupport/article.jsp?sid=KB409045&cv=801#fbid=PenptpqMrID
[55] http://www.att.com/shop/wireless/data-plans.html#fbid=u8uSsS95oFP
[56] AT&T Plan, Exhibit E.
[57] AT&T Plan, Exhibit E, catch product descriptions for "Flat Rate Main Station Line Service."
[58] The "catch product" is AT&T's designated replacement service for the trial.
[59] AT&T Plan, Exhibit E.

regarding the impact of AT&T's proposal on customer bills. The Commission should require any trial proposal, including AT&T's, to provide information that would enable a clear understanding of the price impact on representative customers.

## Data Collection and Reporting proposed by AT&T is Inadequate

The *Trials Order* highlights the importance of data collection and submission:

> We seek to foster a robust public discussion about these transitions that is fact-based and data-driven – a dialogue that will deepen our understanding of how our nation's values intersect with its communications technologies. Accordingly, *we intend for these to be "open data" experiments so that data are publicly available, or made available pursuant to protective order against non-disclosure as appropriate.*
>
> . . . [T]he Commission will find useful experiments that collect and provide to the Commission data on key attributes of IP-based services, such as network capacity, call quality, device interoperability, service to persons with disabilities, system availability, 911 and PSAP service, cybersecurity, call persistence, call functionality, and service coverage. For experiments that affect consumers, we will consider the specific methods and metrics that will be used to measure consumers' experiences during the experiment. To ensure high-quality data, we expect each experiment to include a "control group" by which to evaluate the performance of the "experimental group, unless the nature of the experiment would not accommodate a control group. We presume that a control group will be within the same geographic area, such as a wire center, as the experimental group. Use of a robust, statistically informative control group will provide the Commission with valuable information when it is presented with likely future applications to discontinue legacy services under section 214.[60]

AARP believes that AT&T's Plan falls short in the area of data collection and submission. AT&T's plan calls for reports to be made on a quarterly basis. AARP does not believe that quarterly reporting provides a sufficient interval. Indeed, given advances in technology, AARP believes that the Commission should encourage real-time data reporting that is publicly available for all trials. The real time data can then be summarized in *monthly* reports by the service provider. Prior to the initiation of any trial, AT&T should provide draft copies of reports

[60] *Trials Order*, ¶¶73-74, emphasis added.

showing the proposed formats, and to the extent that real-time reporting is possible, AT&T should provide access to draft web portals.

As another general matter, AT&T's reporting does not employ any customer surveys, which are suggested in the *Trials Order* as a means to generate information regarding customer satisfaction.[61] Any customer-related data appearing in AT&T's reports will result from situations where customers contact AT&T. It would substantially improve the quality of data if AT&T were to employ a third-party to gather customer feedback using customer surveys.

In the *Trials Order*, the Commission requested that trials utilize a control group to compare to the experimental group.[62] AT&T's Plan indicates that AT&T will develop control groups, but provides no details regarding the location or nature of those control groups.[63] Prior to granting final approval to AT&T's Plan, AT&T should be required to identify the proposed control wire centers, and to provide side-by-side comparisons of the characteristics of the control and trial wire centers. The side-by-side comparisons should include data on service quality performance metrics for the previous 12 months in both the trial and control wire centers, including out-of-service (OOS) trouble reports, OOS per 100 lines, initial OOS intervals, repeat OOS trouble reports, and repeat OOS intervals.

### Problems with AT&T's proposed reporting metrics

AT&T proposes the following metrics for reporting:

Quarterly Transition Progress Report

Quarterly Customer Issues Report

Quarterly Defects per Million (DPM) Report

[61] *Trials Order*, Appendix B, ¶50.
[62] *Trial Order*, Appendix B, ¶51.
[63] AT&T Plan, p. 55.

TDM DPM (Total blocked calls/total attempts) x 1M

VOIP DPM (Total blocked/dropped calls/total attempts) x 1M

Wireless Network Performance

> Measurement of Accessibility and Retainability, which defines the customer's ability to make and retain a call on the wireless network. Accessibility = percent of attempted calls that are successfully established and allow voice communication to begin while retainability = percent of voice calls that are successfully carried for the duration of the conversation.

Access by Persons with Disabilities

> (1) Separately track and report on a quarterly basis complaints to AT&T's Office of the President from the trial wire centers where a customer self-identifies him- or herself as having a disability, or the customer's issue relates to assistive technology; and (2) ask disability organizations that are assisting AT&T with the trial to record and report to AT&T any feedback that they receive in connection with their outreach to persons with disabilities.

Quarterly IP Network Outage Report

Voice Quality Metric

As noted above, for all of these reports, quarterly reporting is not sufficient, and reporting for both the trial and control wire centers should be parallel in frequency and metrics. In addition, AARP has the following comments on the following proposed metrics.

**Customer Issues Report.** AT&T describes the Quarterly Customer Issues Report as follows:

> Data will be collected from: direct customer input to trial-specific web sites, calls to AT&T customer care centers and issues identified by AT&T field representatives having customer contact. AT&T will classify issues in a way that is reflective of the type of issues customers are describing, such as: accessibility, product availability or product performance.[64]

While trial-specific web sites are appropriate, so are trial-specific call centers. As part of any trial, AT&T should be required to establish a specific "Trial Hotline" that bypasses AT&T's normal call center queues. AT&T should be required to report the performance of the call centers handling customer issues related to the trials, specifically showing calls offered, calls

[64] AT&T Plan, p. 54.

handled, holding times, and drop-out calls (calls that drop while in a queue). Furthermore, the "issues" described by AT&T are vague. Rather than "product performance," AT&T should be required to report specific information on trouble reports, service restoration intervals, and repeat trouble reports. AT&T should also report separately for those customers who are using wireline and wireless facilities. Data should be reported on a customer-class basis, and should be formally reported on a monthly basis.

**Quarterly Defects per Million Report.** AT&T only proposes to provide aggregated data on this metric. AARP believes that these reports should be prepared on a customer class basis. Differences in the customer experience based on customer class are important for the Commission to understand. Thus, the TDM and VoIP-related performance should reported separately for business and residential customers.

**Wireless network performance.** AT&T's description is not clear as to whether the wireless network performance metric is the only metric for wireless calls, or whether wireless calls are included in the defects per million measure.[65] AARP believes that defects per million should be separately reported for wireline and wireless calls (on a customer class basis), so that comparable statistics result, allowing the Commission to evaluate performance in the control wire center and to compare that performance with the performance of both the wireline and wireless replacements. Given the lack of clarity in AT&T's filing as to whether its wireless offering is a VoIP service, AT&T should also separately report data for wireless VoIP and non-VoIP wireless

[65] AT&T states in its Plan "AT&T is a leader in the measurement of network reliability by adapting the manufacturing model of defects per million (DPM) to the measurement of reliability in its own networks. Through the DPM measurement, AT&T is able to rapidly and accurately determine the root cause of a network outage and to hold the responsible party (e.g., vendor, supplier, process, or business unit) to account with the aim of avoiding similar events in the future." AT&T Plan, p. 25.

replacements that it offers, and generate defects per million results for those services on a customer class basis as well.

**Persons with disabilities.** While AARP finds that AT&T's Plan has promising elements with regard to outreach and education efforts directed at individuals with disabilities,[66] the data collection proposed by AT&T raises questions. With regard to the impact of the trials associated with individuals who have disabilities, AT&T suggests that it will not collect quantitative data, but will instead focus on qualitative data.[67] AT&T needs to clarify what it sees as the difference, and explain whether or not quantitative measures are automatically associated with the generation of qualitative data.[68] In addition, AT&T states that tracking of issues associated with disabled customers will be counted if they reach the "Office of the President" and the individual *self-identifies* as being disabled.[69] It is not clear why the issue must escalate to the "Office of the President" to be counted. Indeed, all contact with disabled individuals during the trials should be reported by AT&T. Likewise, AT&T efforts to seek the disability status of a customer who has contacted AT&T are appropriate as part of a trial. AT&T should better explain how data collection issues for disabled customers will be handled.

**Quarterly IP Network Outage Report.** AT&T proposes to report outages on a quarterly basis. Specifically AT&T proposes to report outages "that affected voice services in a trial wire center area that were reported to the FCC via NORS, pursuant 47CFR Part 4."[70] AARP does not believe that AT&T's outage-reporting proposal is sufficient. The Commission's rules associated with outage reporting contain minimum threshold requirements that are not appropriate for wire

[66] AT&T Plan, pp. 37-38.
[67] AT&T Plan, p. 55.
[68] For example, customer complaints from a disabled individual generates the same data point (i.e., a customer complaint), as does a non-disabled individual. Likewise, should specific problems arise with assistive technology due to the trials, there will be a quantitative number of events, in addition to qualitative interpretations.
[69] AT&T Plan, pp. 55-56.
[70] AT&T Plan, p. 56.

center trials. The Commission should be informed of all outages that affect both voice and data communications services in the trial and control wire centers.

**Voice Quality Metric.** While AT&T mentions that it has developed voice quality metrics for TDM, U-Verse VoIP, and its Wireless Home Phone service, it does not specify how the tests will be applied, or how results will be reported. This is another area where third-party testing is appropriate. AARP believes that comparative performance measures that allow the Commission to track voice quality should be reported monthly, and that the information reported should clearly distinguish between the voice platform, and the customer class.

## Customer Outreach and Notice are Inconsistent in AT&T's Plan

AT&T's Plan includes two fundamentally different approaches to community outreach. In Carbon Hill, AT&T has already conducted a series of public meetings,[71] and has provided a specific timeline for additional customer outreach:

- April: Meeting with first responders (fire, police, EMS)
- May: Open meeting for customers with questions or concerns.
- June: Meeting with local religious leaders. Possible additional meetings in each of their churches.
- July: Meeting with focus on seniors and senior tech training.
- August: Meeting with local educators (teachers, principals, librarians)
- September: Meeting with economic developers (local business owners/managers)
- October: Meeting focused on introducing new technologies
- November: Open meeting for customers with questions or concerns.
- December: Meeting with health care providers.[72]

On the other hand, in Kings Point, AT&T provides much less detail regarding its community outreach efforts:

[71] AT&T Plan, p. 18.
[72] AT&T Plan, p. 18.

> AT&T will hold community events at different locations around Kings Point to provide customers information about the trial and transition. AT&T will send direct mail to its customers and run informational advertisements in local media to notify interested parties of these meetings. These events will include meetings with local senior groups, local churches and synagogues, the local chamber of commerce and economic development agencies, first responders, educators and healthcare providers. These include:
>
> - Two to four Listening Tour Meetings with Key Stakeholders and AT&T's state president for Florida within the first 30 days after filing this plan.
> - Two to four Town Hall events within the first 45 days, depending on community participation and interest.[73]

It is not clear to AARP why Kings Point has received a less detailed schedule. AARP believes that outreach associated with the trials should be based on a perspective of applying best practices, and the specifics associated with the Carbon Hill are more in line with a verifiable level of outreach. However, in both cases, AARP is concerned that the timing of customer outreach and education is anchored by the filing of AT&T's application, *rather than the start of the trials*. Given the delay between the application and the start of the trials, AARP is concerned that there will be a potential disconnect with customers as to what the actual status of the trial is. Thus, AARP recommends that AT&T include additional outreach efforts as the start date of the trials approaches, and that consumers and other stakeholders are kept apprised of delays or other factors affecting the execution of the trials.

### Customer notice proposed by AT&T is inadequate

AT&T's customer notice plan appears to offer ample opportunity for information flows to the customer, however, the nature of the information is not complete. Specifically, customers should be informed before the first phase of any trial of the impact of the transition on *service prices and service availability*. On this matter, the *Trials Order* states:

> [T]he nature of any relevant network changes; whether customers may opt in or opt out of the experiment after it has begun; the timing of any changes; what features of the provider's existing technology will no longer be available on the new technology and

[73] AT&T Plan, pp. 19-20.

> how that may impact third-party devices and services the customer uses (e.g., medical monitoring services); how the provider's services will change including any differences in prices, terms and conditions; where a customer may go for more information; and any other details regarding the experiment that likely will be of relevance to customers.[74]

AT&T indicates that it knows which customers will only have wireless service options available.[75] These consumers must be quickly informed of the fact that it is AT&T's plan that wireline voice services will no longer available. Similarly, all DSL customers who will face a wireless option must be timely informed of this fact. In addition, customers should be informed of the prices (including taxes and fees) of the options that they will have. This is especially important for customers who will have DSL services eliminated. AT&T should be required to present information on wireless data pricing options for various levels of data usage.[76] Furthermore, the information that consumers receive must also inform them that as part of the trial process, AT&T plans on seeking relief from Eligible Telecommunications Carrier requirements on "the first day of Stage 1 of the trials,"[77] and that this will mean that AT&T may, should ETC relief be granted, refuse to serve customers at its discretion.

## Location of AT&T's Trials Exclude Some Complex Issues

As discussed above, AARP believes that the Kings Point wire center may shed light on technology transition issues for older Americans. AT&T provides other data regarding the demographic characteristics of the two wire centers, which is reproduced below.

[74] *Trials Order*, Appendix B, ¶46.
[75] "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.
[76] As discussed above, AT&T estimates that wireline broadband customers utilize about 21 GB per month.
[77] AT&T Plan, p. 39.

| | Total | White alone | Black or African American alone | American Indian and Alaska Native alone | Asian alone | Native Hawaiian and Other Pacific Islander alone | Some other race alone | Two or more races | Hispanic or Latino |
|---|---|---|---|---|---|---|---|---|---|
| **Carbon Hill, AL** | 6,594 | 6,250 | 275 | 2 | 6 | 0 | 0 | 55 | 6 |
| | | 95% | 4% | 0% | 0% | 0% | 0% | 1% | 0% |
| | | | | | | | | | |
| **Kings Point, FL** | 64,218 | 53,715 | 4,330 | 59 | 1,089 | 0 | 259 | 455 | 4,311 |
| | | 84% | 7% | 0% | 2% | 0% | 0% | 1% | 7% |

**Figure 1: Racial Demographics of Trial Wire Centers**[78]

According to data from the 2012 *American Community Survey*, nationwide, about 73.9 percent of Americans are white, about 12.6 percent are black or African American, and about 16.9 percent are Hispanic.[79] Thus, the wire centers in the trials reflect a population demographic that is more white and less Hispanic than national averages. While it is understandable that finding wire centers that reflected true averages would be difficult, it is important to note, when considering the usefulness of data generated by the trials, that the snapshot that is provided is biased toward white and non-Hispanic populations.

AT&T notes that the trial wire centers, as far as AT&T can tell, do not have any critical Department of Defense or Federal Aviation Administration facilities.[80] AT&T indicates that this fact should mitigate concerns raised in the *Trials Order* regarding the potential impact of a trial on the facilities.[81] However, the *Trials Order* did not indicate that these facilities should be excluded:

> A transition may impact many dimensions of public safety, law enforcement, cybersecurity, and national security. *Data should measure the transition's impact on*

[78] AT&T Plan, p. 6.
[79] ACS Demographic and Housing Estimates, 2012 American Community Survey 1-Year Estimates http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_1YR_DP05&prodType=table
[80] AT&T Plan, p. 26.
[81] AT&T Plan, p. 26.

> *government functions (e.g., police, fire, Emergency Medical Services (EMS), or the Federal Aviation Administration (FAA) or Department of Defense (DoD)). . .*[82]

Thus, AT&T's Plan will not generate any data regarding the potential impact on these critical facilities, which is another limitation of the proposed trials.

The King's Point wire center has geographic characteristics that are unlikely to provide challenges associated with offering wireless replacement service, as the terrain is generally flat. However, it appears that the Carbon Hill wire center may present a more challenging terrain, for in-home wireless replacement. While the performance of a wireless replacement to TDM-based wireline service is an important issue in any location, the complexity of the Carbon Hill wire center suggests that AT&T will have to take special steps to ensure that typical shortfalls of wireless services related to terrain, foliage, and availability of service indoors will be addressed prior to replacing TDM-based wireline service with the Wireless Home Phone offering in the trial.

AT&T selected the trial wire centers to be located in states where state authority over matters associated with the trials has been eliminated.[83] As a result, these trials will not reflect the experience in any state where state authority over matters associated with a trial, such as carrier of last resort obligations, is ongoing.

The Commission should recognize that it cannot generalize the results of these trials as being reflective of the experience of IP transition in states where such authority continues to exist,

[82] *Trials Order,* Appendix B, ¶55.
[83] "Frank Simone, AT&T assistant VP—federal regulatory, said that state regulatory requirements 'actually was one of the questions we were considering as we decided' which locations to choose for the proposed trials." "Mr. Hultquist said that AT&T will be meeting with state officials in Florida and Alabama. However, he added, 'we do not believe that these trials require any filings in these states,' given their statutory and regulatory frameworks." "AT&T Proposes IP Transition Trials for Rural, Suburban Wire Centers," *TRDaily*, February 28, 2014.

where high concentrations of non-white or Hispanic populations are present, or where critical national security or public safety facilities are located.

## AT&T's Proposed Timeline for Trials is Uncertain

AT&T's proposed timeline raises important issues with regard to the trials. In the *Trials Order*, the Commission stated that "We wish to begin the experiments as soon as possible."[84] To ensure this outcome, the Commission established an expedited submission process for the initial round of experiments, but also envisioned the potential for additional future submissions. AT&T's timeline for its proposed trials is not consistent with the spirit of the *Trials Order* vision of quickly beginning a trial. AT&T has publicly stated that the trials are expected to begin in "late 2014 or early 2015."[85] However, this information cannot be reconciled with information regarding the trial start dates contained in AT&T's application.

Phase I of AT&T's proposed trials begins with "Grandfather Customer Notice & Phase I 214 Filing for Interstate Services."[86] However, the start of Phase I is contingent on AT&T developing solutions to the numerous technical shortfalls in its wireless home service. AT&T states:

> AT&T Mobility's Wireless Home Phone and Wireless Home Phone and Internet services currently are not compatible with analog data devices and services (e.g., home security systems, fax machines, and dial-up Internet service). AT&T understands the importance of some of these capabilities and is therefore developing enhancements to Wireless Home Phone with LTE that will allow this wireless service to work with analog data devices, such as alarm monitoring, medical alert and credit card applications. . . *AT&T will not seek to grandfather its TDM-based voice services until these enhancements are available*.[87]

[84] *Trials Order*, ¶80.
[85] http://ip4carbonhill.att.com/faqs/
[86] AT&T Plan, Exhibit D.
[87] AT&T Proposal, p. 20.

AT&T does not provide a specific date when these enhancements will be available, but the general time frame for the enhancements identified by AT&T is not consistent with its public statements that the trials will begin in late 2014 or early 2015. This suggests an extended delay prior to the start of Phase I. While AARP applauds AT&T for seeking to develop the necessary enhancements to its wireless service, given the time frame projected by AT&T, AARP believes that it is reasonable to conclude that the solution will not be an easy fix, perhaps leading to additional delays in the start of the trials.

Given this lengthy time horizon before the start of the Phase I trial, AARP believes that AT&T is premature in requesting these trials. At this time, AT&T cannot inform this Commission or the affected consumers of precisely when the trials will start, or the precise performance of the technologies will be deployed during the trials. Any consumer information sessions held at this point will be unable to present consumers with the vital information that they need to understand whether or not to participate in the voluntary trials in the first place.[88] AARP believes that this Commission must reject AT&T's proposal as untimely and inconsistent with the letter and spirit of the *Trials Order.*

## AT&T's Planned Sunset of Services is Premature

In the *Trials Order,* the Commission made clear that the sunset of services was part of a two-step process:

> We reiterate that no experiment that involves removing, reducing, or impairing a legacy service in favor of an experimental service may proceed under the framework of this Order unless the provider files for and we grant such discontinuance authority as may be required by section 214 of the Act. *Any such grant of section 214 authority would be temporary and for the limited purpose of conducting the experiment.* As a consequence of its temporary nature, a grant of section 214 authority does not extend past the experiment, and at the end of the experiment providers must offer and customers may choose to

[88] "We believe that making the experiments voluntary for existing customers serves the public interest." *Trials Order,* ¶6.

> subscribe to the service that had been temporarily discontinued unless, of course, a permanent section 214 approval had been granted.[89]

AT&T's Timeline presents a process where soon after the start of a trial AT&T will file notice to customers that services will be eliminated. Thus, AT&T's Plan appears to be a proposal for a one-way street for the withdrawal of TDM-based services. The Commission should not accept AT&T's sunset timeline as submitted, and should remind AT&T that any initial grant of 214 authority for interstate services is temporary.[90]

## Conclusion—AT&T's Plan Should be Rejected

AT&T's Plan is incomplete and fails to address key issues identified in the *Trials Order*. The problems with AT&T's plan are numerous. As discussed above, there is an extended delay associated with the start of Phase I of the trials, and specific information regarding the performance of proposed replacement products to be offered during the trials is lacking, with only an indication that more information will be available at a later date. As a result, AARP believes that interested parties' ability to fully respond to AT&T's proposal has been compromised. The parties have been placed in the awkward position of being asked to respond to an incomplete plan—with the actual details emerging at unspecified later dates. If the Commission does not reject AT&T's Plan, AARP believes that this Commission must amend the timeline associated with the *Trials Order* to enable further comment on details of AT&T's plan as those details become available.

As a result of these and the other shortcomings discussed above, AARP does not believe that AT&T's Plan is a reasonable technology trial, or one that is consistent with the provisions of the *Trials Order.* Until the missing details are known, and the public has the opportunity to respond

[89] *Trials Order*, ¶79.
[90] *Trials Order*, ¶79.

to the entirety of AT&T's plan, the Commission should not issue final approval of AT&T's proposal. Alternatively, the Commission could now reject AT&T's proposal as untimely and instruct AT&T to file for its trial when it can inform the public and this Commission of the actual details associated with the characteristics and performance of the technologies that will be utilized in the trials, and firm dates on which the trials will begin.

Given the numerous problems associated with AT&T's plan, AARP has made recommendations for improvements in AT&T's plan. Should the Commission move forward, it should adopt those recommendations, as discussed in the Summary and Overview section of these comments, above.

# Attachment A

# Topographic Maps of the Carbon Hill Wire Center

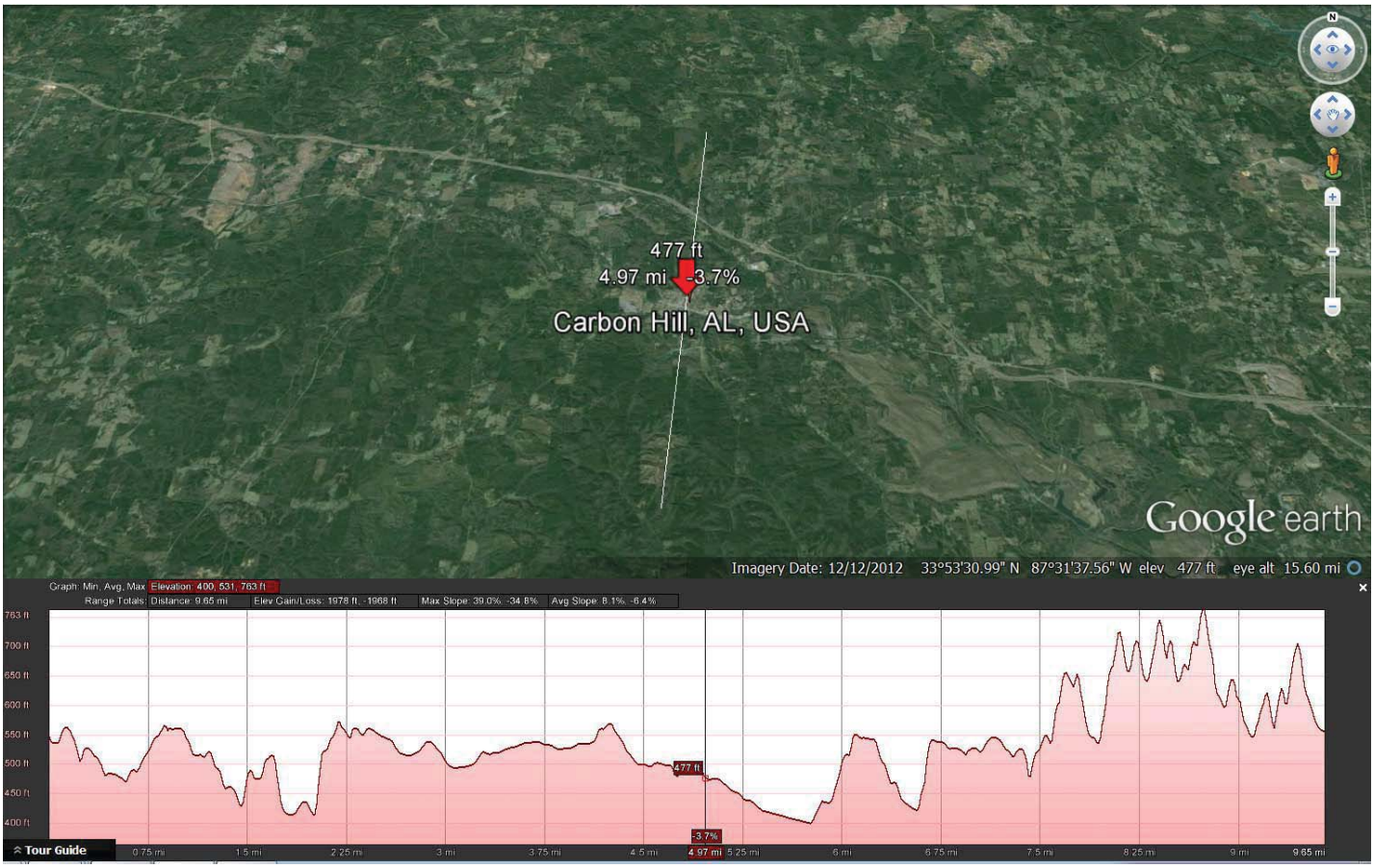


Figure A1: Terrain variation in the Carbon Hill area (on north-south line).

The lower portion of Figure A1 shows terrain variation on the north-south line centered on the town of Carbon Hill. Elevation levels shown range from 400 feet to 763 feet.

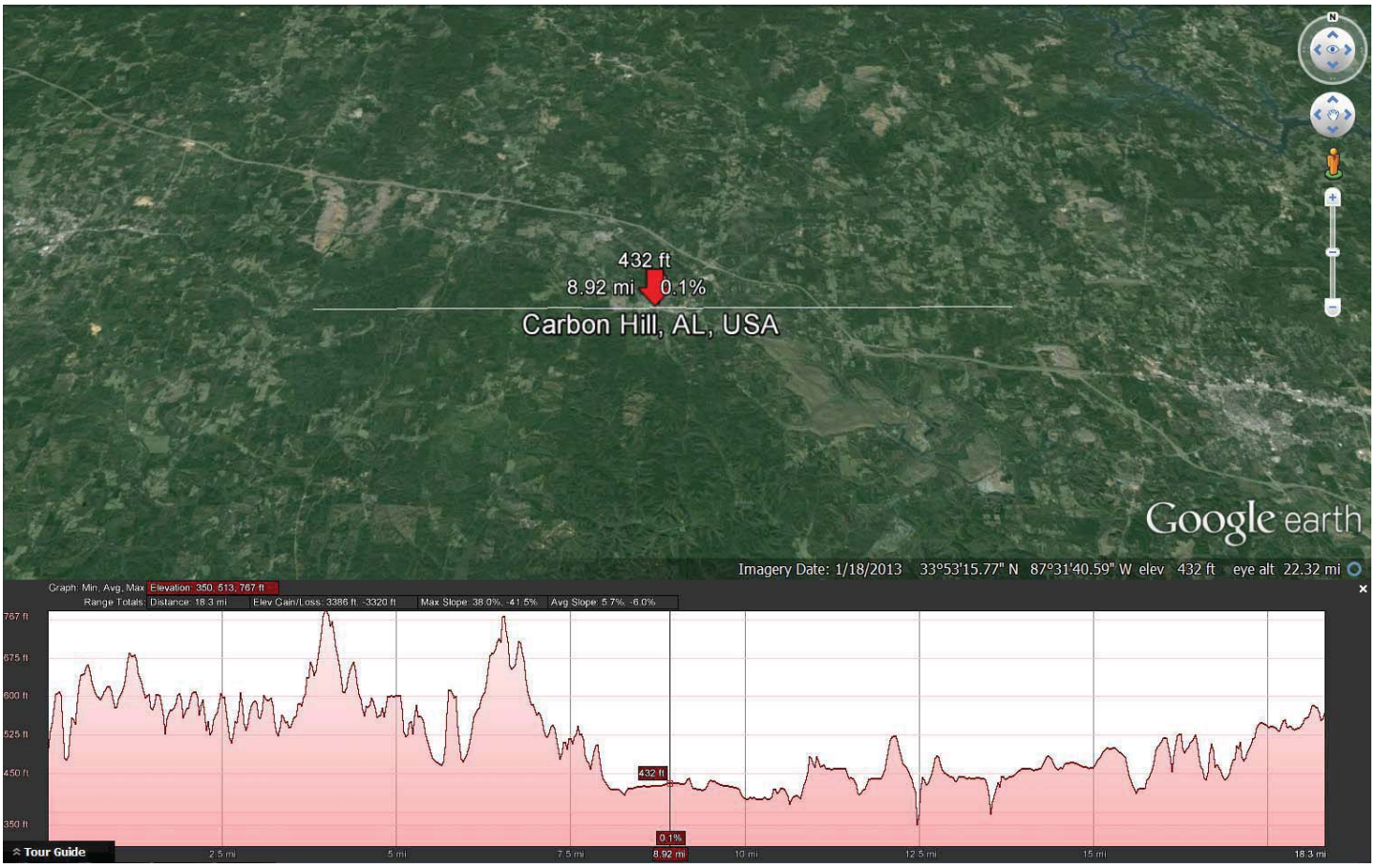


Figure A2: Terrain variation in the Carbon Hill area (on east-west line).

The lower portion of Figure A2 shows terrain variation on the east-west line centered on the town of Carbon Hill. Elevation levels shown range from 350 feet to 767 feet.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transition | ) | GN Docket No.13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |
| | ) | |
| | ) | |

**COMMENTS OF THE NATIONAL CONSUMER LAW CENTER, ON BEHALF OF ITS LOW-INCOME CLIENTS ON AT&T'S PROPOSAL FOR WIRE CENTER TRIALS**

The National Consumer Law Center, on behalf of its low-income clients ("NCLC) respectfully submits these opening comments[1] on AT&T's proposal for two TDM to all-IP trials in two wire centers in Alabama and Florida.[2]

The National Consumer Law Center® (NCLC) is a nonprofit that works for economic justice for low-income and other disadvantaged people in the U.S. through policy analysis and advocacy, publications, litigation, and training. NCLC has long been involved in the policy issues around the design of the Lifeline program as part of its work to ensure affordable, reliable access to essential utility service for consumers with limited means.

## I. Introduction

The Chairman refers to the IP-transition as a "move from the circuit-switched networks of Alexander Graham Bell to the new networks of the Internet Revolution."[3] AT&T begins its proposal with a description of how the IP transition is transforming "the way we communicate, educate our children, deliver healthcare, consumer energy, obtain news and other information, engage in commerce, and interact with government." [4] Consumers are being promised a more robust communications platform as the voice-centric networks of yesterday are transitioned to

[1] *Per* DA 14-283 (rel. February 28, 2014).
[2] AT&T Proposal for Wire Center Trials (Redacted -- for Public Inspection) (February 27, 2014)("AT&T Proposal").
[33] Statement of Chairman Wheeler, FCC 14-5, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, In the Matter of Technology Transitions et al, GN Docket No. 13-5 et al, (rel. Jan.31, 2014)("Technology Transitions Order") at 104.
[4] AT&T proposal at 2.

more general broadband transport networks. Yet, the glide path being set forth in AT&T's trial proposal risks leaving those with very, modest means and those living in more rural and remote parts of the country further behind. The availability of affordable voice service is not guaranteed after these trials and, even more important, there is a missed opportunity to start closing the broadband divide by ensuring the consumers in these trial areas have access to affordable broadband services. We are concerned those consumers in the two trial centers will not be better off at the end of the trial and that this will become a game plan for other carriers to get out from universal service obligations.

## II. AT&T's Proposal Walks Away From Universal Access

The Commission unanimously embraced a framework of presumptions and conditions for IP transition trials that protects enduring "core, statutory values of public safety, universal access, competition, and consumer protection" in its January 2014 order.[5] These comments focus primarily on AT&T's proposed trails shortcomings with universal access and affordability.

The Commission devoted considerable attention in the January order to the critical importance of universal access to communication services:

> 50. Ensuring that all Americans have access to communication services – the value of universal access – is central to our statutory mission. A cornerstone of the Communications Act of 1934 that established the Commission, [cite omitted] universal access policies helped to make telephone service ubiquitous throughout the country and accessible to all Americans. The Telecommunications Act of 1996 expanded our universal access mandate to include increased access to both telecommunications and advanced services – such as high-speed Internet – for all consumers at just, reasonable and affordable rates. The Act established principles specifically focused on increasing access to evolving services for consumers living in rural and insular areas and for consumers with low-income.
>
> 51. As networks transition, we must protect and promote universal access. The transitions hold tremendous promise for enhancing universal access, and we seek through these experiments to lean how best to accelerate the delivery of these benefits to all Americans.[cite omitted][6] . . . .
>
> 54. *Protect Specific Populations.* We require that service-based experiments protect the interests of any specific populations that are potentially at risk, including ensuring that no consumer loses access to service or critical functionalities as a result of the experiment. We have a statutory responsibility to help advance network-based communications for *all* the people of the United

[5] Technology Transition Order at paras. 37-69.
[6] Technology Transition Order at paras. 50-51.

> States.[cite omitted] . . . As the Leadership Conference on Civil and Human rights has emphasized, the Commission must ensure that all consumers and, in particular, underserved communities will continue to have access to reliable service and consumer protections during and after the technology transitions.[cite omitted] [7]

Unfortunately, AT&T has devoted considerable attention to its intent to walk away from its universal service obligations, including offering Lifeline.[8] Effective the first day of "Stage 1" of its trails, AT&T plans to file for relief of its universal service obligations.[9] AT&T also states that it cannot economically extend its next generation wireline and wireless broadband footprint to reach all its customers in its 22-state wireline service area.[10] It is particularly disturbing that AT&T has signaled to the Commission that it has no ready plan for replacement services for 4 percent of its customers in Carbon Hill, Alabama.[11] The Commission should demand AT&T provide more than a shoulder shrug for this 4 percent and require AT&T to submit a more concrete plan, otherwise it risks sending a message that there is a tolerance for a company leaving 4 percent of a customer base behind.

AT&T also refuses to offer a standalone wireline voice product because it is more cost-effective for the company to offer wireline voice is as part of a bundle with broadband Internet access and/or video services, or as an application provided over a broadband Internet access service.[12] While this may be more cost effective for the company, for low-income or fixed-income consumers who just want wireline voice service, the cost of a bundle could be unaffordable. Instead, AT&T is offering Wireless Home Phone as the sole standalone voice product.[13] Setting aside the questions about whether Wireless Home Phone product will be equivalent or better than what customers have now, with wireless service AT&T can raise rates whenever it wants and however much it wants. For low-income, fixed-income and cash-strapped households on tight budgets, the cost of Wireless Home Phone could become unaffordable at a moment's notice. After the trials, what assurances will consumers have that AT&T will continue to offer a Wireless Home Phone type of product?

The network transformation is one from a network that was designed primarily for voice calls to one where voice is one of many applications on the network. Thus, there should be more

[7] Technology Transition Order at para. 54.
[8] AT&T Wire Center Trial Operating Plan, Redacted – For Public Inspection (Feb. 27, 2014)("Wire Center Plan") at 39 -42.
[9] Wire Center Plan at 39.
[10] Wire Center Plan at 43.
[11] AT&T Proposal at 14; Wire Center Plan at 43.
[12] Wire Center Plan at 41-42.
[13] WireCenter Plan at 12.

emphasis on affordable broadband service in the two wire centers. [14] The Commission states in its unanimously passed Order that:

> We presume that any applicants in any experiment that we would authorize would continue to provide the same or better levels of Internet access regardless of the technology used. [cite omitted] Congress has tasked the Commission with encouraging the deployment of broadband on a reasonable and timely basis to all Americans. [cite omitted] As stated in the *USF/ICC Transformation Order*, "[a]ll Americans should have access to broadband that is capable of enabling the kinds of key applications that drive our efforts to achieve universal broadband, including education (e.g., distance/online learning), health care (e.g., remote health monitoring) and person-to-person communications (e.g., VoIP or online video chat with loved ones services overseas)."[cite omitted]. While technology transitions usually involve trade-offs, we do not believe reducing broadband access should be among the acceptable costs of network modernization.[15]

Broadband bundles can be unaffordable to low-income, fixed-income and cash-strapped households. Most of the customers in rural Carbon Hill, Alabama who want broadband will be offered Wireless Home Phone with Internet.[16] In general, wireless data plans have data caps and pricing tiers that can limit the utility of the broadband service. Without an emphasis on affordable broadband, consumers who only get the Wireless Home Phone will be left out of the promise of improved lives from the "direct and spillover effects of the technology transition, including innovations that cannot even be imagined today."[17]

## III. Conclusion

AT&T has made clear its intent to seek permission to walk away from its universal service obligations effective day 1 of "Stage 1" of the trials.[18] AT&T has not set forth a plan to transition to affordable, accessible voice AND broadband service. Universal service is a dynamic concept that adapts to the evolving changes in how use technologies to communicate with each other.[19] The Commission recently modernized the High Cost program to maintain voice service while extending broadband-capable infrastructure to unserved and underserved areas in the country.[20] The Commission also adopted a broadband Lifeline pilot to gather data on how the Lifeline

[14] Note the Commission has set out parameters for voice and broadband service, including speed, pricing and usage allowances with the Connect America Fund. *See* Report and Order, In the Matter of Connect America Fund, WC Docket No. 10-90, DA 13-2115 (rel.Oct.31, 2013).
[15] Technology Transition Order at para. 56.
[16] AT&T has no replacement products for 4 percent of Carbon, Hill customers.
[17] Technology Transition Order at para. 2
[18] Wire Center Plan at 39.
[19] *See* 47 U.S.C. sect. 254(c)(1)(definition of universal services).
[20] *See* Connect America Fund et al, WC Docket No. 10-89 et al, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011).

program could be structured to promote broadband adoption by low-income households.[21] The federal Universal Services programs have been part of a larger fabric of universal services which included Eligible Telecommunications Carriers (ETCs) to help ensure the communications network served everyone. AT&T's pilots are a game book for how to walk away from the network compact. We respectfully urge the Commission to reject this current iteration of AT&T's Wire Center Trials and require AT&T to include a low-cost, basic broadband package available to all customers in both wire centers, especially the 4 percent left out of the Carbon Hill Plan.

Respectfully Submitted,

___//s//_____

Olivia Wein
Staff Attorney
National Consumer Law Center
1001 Connecticut Avenue, NW, Suite 510
Washington, DC 20036
202-452-6252
owein@nclc.org

March 31, 2014

[21] See Public Notice, Wireline Competition Bureau Announces Application Procedures And Deadline For Applications To Participate In The Broadband Adoption Lifeline Pilot Program, WC Docket No. 11-4, DA 12-683 (rel. Apl.30, 2012).

WILLKIE FARR & GALLAGHER LLP

1875 K Street, N.W.
Washington, DC 20006-1238

Tel: 202 303 1000
Fax: 202 303 2000

**REDACTED – FOR PUBLIC INSPECTION**

March 31, 2014

**VIA ECFS**

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Room TW-A325
Washington, DC 20554

**Re:** ***In the Matter of Technology Transitions, GN Dkt. No. 13-5; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Dkt. No. 12-353***

Dear Ms. Dortch:

On behalf of Cbeyond Communications, LLC, Integra Telecom, Inc., Level 3 Communications, LLC and tw telecom inc. (collectively, the "Joint Commenters"), please find enclosed the redacted version of the Joint Commenters' comments on the service-based experiment proposal submitted by AT&T on February 27, 2014 in GN Docket Nos. 12-353 and 13-5 (the "Comments").[1] The Comments contain information that AT&T has designated as confidential and highly confidential under the *Modified Protective Order*[2] and *Second Protective Order*[3] in this proceeding.

Pursuant to the procedures outlined in the *Second Protective Order*, the original highly confidential version of the comments is being filed with the Secretary's Office, and two copies of the highly confidential version of the Comments are being delivered to Jonathan Reel of the Competition Policy Division of the Wireline Competition Bureau.

---

[1] *See* AT&T Proposal for Wire Center Trials, GN Dkt. Nos. 13-5 & 12-353 (filed Feb. 27, 2014); *see also id.*, Attachment, "AT&T Wire Center Trial Operating Plan."

[2] *In the Matter of Technology Transitions; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition*, GN Dkt. Nos. 13-5, 12-353, Protective Order, DA 14-272 (rel. Feb. 27, 2014) ("*Protective Order*").

[3] *In the Matter of Technology Transitions; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition*, GN Dkt. Nos. 13-5, 12-353, Second Protective Order, DA 14-273 (rel. Feb. 27, 2014) ("*Second Protective Order*").

Please do not hesitate to contact me at (202) 303-1111 if you have any questions regarding this submission.

Respectfully submitted,

*/s/ Thomas Jones*

*Counsel for Cbeyond, Integra, Level 3 and tw telecom*

Enclosure

**REDACTED – FOR PUBLIC INSPECTION**

**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

# COMMENTS OF CBEYOND, INTEGRA, LEVEL 3, AND TW TELECOM

WILLKIE FARR & GALLAGHER LLP
1875 K Street, NW
Washington, DC 20006
(202) 303-1000

*Counsel for Cbeyond, Integra, Level 3, and tw telecom*

March 31, 2014

## TABLE OF CONTENTS

**REDACTED – FOR PUBLIC INSPECTION**

**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

# COMMENTS OF CBEYOND, INTEGRA, LEVEL 3, AND TW TELECOM

Cbeyond Communications, LLC ("Cbeyond"), Integra Telecom, Inc. ("Integra"), Level 3 Communications, LLC ("Level 3"), and tw telecom inc. ("tw telecom") (collectively, the "Joint Commenters"), through their undersigned counsel, hereby submit these comments on the service-based experiment proposal submitted by AT&T on February 27, 2014 in GN Docket Nos. 12-353 and 13-5.[1] As discussed herein, AT&T's proposal contains a number of serious defects and the Commission should not approve the proposal unless and until AT&T addresses these defects in a manner consistent with the *Experiments Order*.

## I. INTRODUCTION AND SUMMARY.

Throughout this proceeding, the Joint Commenters have urged the Commission to rigorously assess the costs as well as the benefits of technology transition trials and to approve such experiments only where the costs are clearly outweighed by the benefits.[2] The Joint Commenters remain concerned that AT&T's relentless advocacy in favor of trials to be

[1] *See* AT&T Proposal for Wire Center Trials, GN Dkt. Nos. 13-5 & 12-353 (filed Feb. 27, 2014) ("AT&T Proposal"); *see also id.*, Attachment, "AT&T Wire Center Trial Operating Plan" ("AT&T Plan").

[2] *See, e.g.*, Comments of Cbeyond, EarthLink, Integra, Level 3, and tw telecom, GN Dkt. No. 13-5, at 3-5 (filed July 8, 2013) ("Joint Commenters' Technology Transitions Trials Comments").

conducted in wire centers hand-picked by AT&T could well cause more harm than good. Such trials are likely to be extremely costly in a number of respects. Wholesale customers, such as the Joint Commenters, must incur the expense of participating in this proceeding and, to the extent they operate in an area encompassed by the trial, of participating in the trial, while trying to prevent harm to their customers and to their reputation for providing good service. The Commission itself and state regulators must incur the considerable costs of reviewing and overseeing the trial, and of assessing the outcome, whatever that may be. And residential and business customers in the wire centers selected for the trial must incur the costs associated with the likely compulsion to transition to IP and packet-based services before they would otherwise choose to do so.

Just as importantly, there is a serious risk that AT&T will exploit the trial in many subtle, but significant, ways. For example, trials will divert FCC resources away from critically important local competition proceedings, such as the special access proceeding, that are key to spurring investment in packet-based networks. In addition, highly-publicized trials enable AT&T to frame the broader Commission agenda as focused on AT&T's own "no regulation" agenda instead of the more urgent task of constraining AT&T's ability to use its market power to slow-roll the expansion of competitors' packet-based networks and offerings. Moreover, these serious costs must be considered in light of the broader context, in which no other incumbent LEC (not even Verizon or CenturyLink) seems to believe that it is necessary to conduct technology transition trials.[3]

[3] *See, e.g.*, Reply Comments of Cbeyond, EarthLink, Integra, Level 3, and tw telecom, GN Dkt. No. 12-353, at 1-7 (filed Feb. 25, 2013); Joint Commenters' Technology Transitions Trials Comments at 11-19.

To its credit, the Commission seems to recognize the significance of these costs. In the *Experiments Order*, it established requirements and guidelines for trials, now called "service-based experiments," designed to ensure that the benefits of experiments exceed the considerable costs. As discussed in Part II.A below, the Commission held in the *Order* that service-based experiments must promote, not undermine, the fundamental values embodied in the Communications Act, including of course competition, but also public safety, universal access, and consumer protection. The Commission also made clear that service-based experiments are only worthwhile if they yield reliable information about the effects of the ongoing TDM-to-IP transition on customers. Accordingly, the *Experiments Order*, and in particular Appendix B of the *Order*, includes mandatory conditions as well as detailed guidance as to the information and commitments that any proposal should contain. These conditions and guidelines are all designed to ensure that an experiment will be worth the costs of participation and oversight, and they are all designed to ensure the protection and promotion of the bedrock policy objectives of the Act during the conduct of each experiment.

Unfortunately, AT&T's proposal does not meet either the letter or spirit of the requirements and guidelines set forth in the *Experiments Order*. As one of AT&T's own executives (the president of AT&T Alabama) has observed, the company's proposal contains "more questions than answers."[4] This is notable because AT&T has been strongly advocating the idea of technology transition trials or experiments for more than 16 months. That it is still, even now, unprepared to design, let alone conduct, a useful service-based experiment again raises the question of whether AT&T has been motivated more by the desire to skew regulatory

[4] Kery Murakami, *Uncertainties in AT&T's Transition Plan Make It Hard to Assess, Observers Say*, COMMUNICATIONS DAILY, at 8 (Mar. 17, 2014).

discourse in its favor than by the desire to study the effects of the TDM-to-IP transition on end users. In any event, the shortcomings of AT&T's proposal are numerous.

*First*, the proposal is missing much of the most fundamental information that is necessary for meaningful review and that, in most cases, is required under the *Experiments Order*. The missing information also raises questions about the utility of the proposed experiment. As discussed in Part II.B below, the list of such missing components includes the following:

- AT&T does not know when it will be ready to begin the experiment, so the proposal contains no proposed start date.

- AT&T states that it will transition wireline customers to semi-fixed wireless service, but it candidly admits that it has not yet developed a semi-fixed wireless business phone product (similar to its "Wireless Home Phone" service for residential customers), and it gives no indication as to when this product will be ready.

- AT&T states that it is "working diligently to develop IP replacement services . . . for resale to wholesale customers," as well as "an IP-based alternative to [its Local Wholesale Complete] product," but it has not yet completed the development of either.

- AT&T has not completed the development of certain 911 capabilities for its semi-fixed wireless services for residential or business customers.

- AT&T states that Wireless Home Phone and Home Phone with Internet services are not compatible with a number of important analog data devices and services (*e.g.*, alarm monitoring, medical monitoring, and credit card validation), and that it will not develop the enhancements needed to ensure such compatibility for some time.

- AT&T states that TTY compatibility and accessibility for Wireless Home Phone "is being carefully assessed," but has not yet been developed.

- AT&T seeks to escape its eligible telecommunications carrier ("ETC") obligations in the selected wire centers during the proposed experiment, but those obligations are the law and AT&T has not even attempted to meet the prerequisites for either forbearance from or a waiver of those requirements.

- AT&T has failed to include wire centers that encompass a representative cross-section of the U.S. population or AT&T's existing customer base in its

experiment, with the result that customers in urban areas—particularly retail business and wholesale customers in those areas—are completely unrepresented.

- AT&T provides no indication as to how and to what extent it expects to extrapolate statistically meaningful conclusions about the impact of the transition on residential, business, and wholesale customers from the sample population and sample size it has chosen for the experiment, and it has not even bothered to select the control group wire centers.

*Second*, as discussed in Part II.C, AT&T's proposed treatment of wholesale services—most importantly, wholesale access to packet-based local transmission facilities—is inconsistent with the *Experiments Order*. There, the Commission held that applicants must "ensure that comparable services are available during the experiment at equivalent prices, terms, and conditions"[5] as those currently offered for TDM-based wholesale services. But AT&T has chosen to keep the rates, terms, and conditions on which it will offer packet-based local transmission services a secret, and it plans to offer such services only subject to—presumably confidential—"commercial" agreements. This is a formula for unreviewable abuse of market power, and, in all events, it makes it impossible for the FCC to ensure compliance with the *Experiments Order*. Moreover, AT&T has not explained how it will prevent wholesale customers that replace TDM-based special access services with packet-based or other replacement services from incurring early termination, shortfall or other penalties under AT&T's exclusionary special access purchase arrangements. And, while AT&T indicates that it will continue to make copper loops available during the experiment, it provides no information about these facilities in the wire centers at issue.

[5] *Technology Transitions*, Order, Report and Order and Further Notice of Proposed Rulemaking, FCC 14-5, ¶ 59 (rel. Jan. 31, 2014) ("*Experiments Order*"); *see also id.*, Appendix B, ¶ 35 (setting forth the wholesale access requirements that any service-based experiment must satisfy).

*Third*, as explained in Part II.D, AT&T seems to believe that it is largely, possibly entirely, free of regulations applicable to an incumbent "local exchange carrier" (*i.e.*, a provider of telephone exchange or exchange access services) when it provides VoIP and semi-fixed wireless services in lieu of legacy TDM-based voice services. This assertion rests on the assumptions that (1) the FCC will classify VoIP service as an information service and rule that VoIP is not a telephone exchange or exchange access service, and (2) the FCC will decide not to treat providers of semi-fixed wireless services as LECs. But the FCC has not reached either of these conclusions. Nor would it be appropriate for AT&T to make such assumptions in an experiment because, among other reasons, (1) AT&T's VoIP and semi-fixed wireless services will clearly serve as replacements for its legacy local exchange service, and (2) exempting AT&T from regulations applicable to incumbent LECs prevents the experiment from encompassing important wholesale operational issues (*e.g.*, the ordering and provisioning of resold VoIP and semi-fixed wireless services).

In light of these omissions and defects, the Commission should deny AT&T's proposal and provide AT&T guidance as to the changes it must make in order for its proposal to pass muster. As discussed in Part III below, consistent with the framework established in the *Experiments Order*, the Commission should clarify that AT&T must meet at least the following requirements before its proposal will be approved:

- AT&T must have completed the development of the services and functionalities that it plans to include in an experiment before the experiment proposal will be approved. This means that AT&T must have finished developing, among other things, (1) all of the functionalities needed to comply with the *Order*, including 911 functionalities and disabilities access capabilities, and (2) all of the features necessary to support analog data devices and services, such as home security monitoring, medical alert, and credit card validation services.

- AT&T must increase the utility of its proposed experiment by including wire centers that encompass a larger and more representative population and a larger and more representative cross-section of AT&T's existing customer base than is the case with its current proposal. In particular, AT&T should include one or more wire centers in urban areas to examine the effects of the transition on all types of customers—residential, business, and wholesale—in such areas. In addition, AT&T should set forth a comprehensive, detailed plan for ensuring that the data yielded by its experiment will be both meaningful and reliable.

- During the experiment, AT&T must comply with the wholesale access requirements set forth in the *Experiments Order*. It follows that AT&T must (1) offer access to packet-based local transmission facilities during the experiment on rates, terms, and conditions that are equivalent to those currently offered for TDM-based special access services and unbundled network elements, (2) publicize those rates, terms, and conditions, and (3) explain in detail how wholesale customers will avoid incurring any penalties for switching from TDM-based special access services to packet-based or other replacement services. AT&T should also provide information regarding the location, length, and condition of copper loops in the relevant wire centers.

- During the experiment, AT&T must comply with regulations applicable to incumbent LECs, including Section 251(c), where it offers VoIP services and semi-fixed wireless services as successors to its legacy TDM-based local exchange service.

## II. AT&T'S SERVICE-BASED EXPERIMENT PROPOSAL IS DEFICIENT IN NUMEROUS RESPECTS

### A. Background

As the Commission explained in the *Experiments Order*, the purpose of service-based experiments is to "encourage[] technological advances while preserving and protecting the enduring values established by Congress" that consumers have come to expect from their communications networks.[6] These statutory values are public safety, universal access, competition, and consumer protection.[7] Under the *Experiments Order*, those proposing technology transition experiments must comply with specific conditions, presumptions, and

[6] *Experiments Order*, Appendix B, ¶ 11.

[7] *Id.*

factors designed to protect these four values.[8] These conditions include requirements pertaining to, among other issues, 911 capability, disabilities access, universal service, and wholesale access.

With respect to wholesale access in particular, the Commission adopted specific requirements designed to protect wholesale customers, and therefore competition, from harm. This is of course a serious threat. Wholesale customers, such as the Joint Commenters, rely on incumbent LEC wholesale transmission services (purchased as special access or unbundled network elements) as well as interconnection with incumbent LECs to provide competitive and innovative broadband services to business customers. Current wholesale regulations designed to constrain incumbent LEC exercise of market power over local transmission facilities and interconnection apply, either by Commission order or by virtue of incumbent LECs' interpretation, only to incumbent LEC network facilities that use legacy TDM technology.[9] If an incumbent LEC were permitted to discontinue offering access to local transmission facilities and/or interconnection as a result of the TDM-to-IP transition, wholesale regulation would become a nullity and wholesale customers would be even more susceptible to incumbent LECs' exploitation of market power. Accordingly, in the *Experiments Order*, the Commission decided that incumbent LECs must offer IP and packet-based replacement inputs that are functionally

[8] *See id.* ¶¶ 11-44.

[9] *See, e.g.*, Reply Comments of Cbeyond, Inc., Integra Telecom, Inc., and tw telecom inc., WC Dkt. Nos. 10-90 *et al.*, at 13-15 & nn.38, 42 (filed May 23, 2011) (discussing the Commission's decisions to eliminate unbundled access to certain fiber loops and the packetized capabilities of hybrid loops as well as dominant carrier regulation of incumbent LECs' packet-based special access services); Comments of Cbeyond, EarthLink, Integra, Level 3, and tw telecom, GN Dkt. No. 12-353, at 9 & n.18 (filed Jan. 28, 2013) (explaining that the largest incumbent LECs have interpreted the FCC's current interconnection policies to apply only to packet-based services if those services are classified as "telecommunications services").

equivalent to regulated TDM-based inputs in experiments where the legacy inputs will be discontinued.[10]

Furthermore, given that AT&T, or others, could use experiments as a means of skewing the outcome of the special access rulemaking or other proceedings, the Commission emphasized that service-based experiments must not be used to resolve pending legal or policy questions that are relevant to the TDM-to-IP transition.[11] Rather, the Commission explained that experiments are intended to give applicants and participants the opportunity to "explore a variety of approaches to resolving any operational challenges" that result from the transition without having to concede that the approach used "represents binding legal or policy obligations outside the context of the experiment."[12]

The Commission further explained in the *Order* that its understanding of the impact of technology transitions on public safety, universal access, competition, and consumer protection must be "fact-based and data-driven."[13] Therefore, the Commission established guidelines to ensure that an experiment will generate valuable and reliable "real-world" data.[14] For example, proposed experiments should encompass a diversity of participating service providers, a diversity of geographic areas (in particular, urban, rural and suburban areas), a diversity of population densities and demographics, a diversity of topologies, and a diversity of seasonal and

[10] *See Experiments Order* ¶ 59; *see also id.,* Appendix B, ¶ 35.

[11] *Id.* ¶¶ 8, 25 ("We state again that these service-based experiments are not intended . . . to resolve legal or policy debates."), 58.

[12] *Id.* ¶ 25.

[13] *Id.* ¶ 8.

[14] *Id.*

meteorological conditions.[15] Moreover, the Commission set forth "principles for the collection and reporting of data from any experiment"[16] and found that useful experiments will include information (*e.g.*, the types of data to be collected, proposed metrics for measuring success, and the control groups to be used)[17] to ensure that they will "not produce misleading or biased results."[18]

These guidelines and requirements in the *Order*, if properly applied and enforced, will ensure that the Commission will only approve experiments in circumstances where the data yielded will be valuable enough to outweigh the costs associated with conducting the experiment. Indeed, the Joint Commenters would willingly participate in service-based experiments that truly complied with the requirements set forth in the *Experiments Order*. As explained below, however, AT&T's proposed experiment does not meet these requirements.

### B. AT&T's Proposal Fails To Meet Many Of The Requirements And Guidelines Established In The *Experiments Order*

It has now been more than 16 months since AT&T filed a petition seeking to conduct TDM-to-IP transition trials in select wire centers.[19] But after all this time, AT&T has submitted a proposal to conduct service-based experiments in Carbon Hill, Alabama and Kings Point, Florida that is missing many key categories of information. The proposal reads like a rush job, written as though the authors had no choice but to make the filing before they were ready to do

---

[15] *See id.* ¶ 30; *id.*, Appendix B, ¶ 3.

[16] *Id.* ¶ 5.

[17] *See id.* ¶ 34; *id.*, Appendix B, ¶¶ 48-58.

[18] *Id.* ¶ 34; *id.*, Appendix B, ¶ 51.

[19] *See generally* AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Dkt. No. 12-353 (filed Nov. 7, 2012).

so. The result is that AT&T's proposal contains numerous omissions and ambiguities that (1) in many cases, render the proposal inconsistent with the *Experiments Order*, (2) preclude both the Commission and interested parties from conducting a meaningful review of the proposal, and (3) raise substantial doubts about the utility of the experiment.

*First*, it is not possible to determine whether AT&T has allocated sufficient time to conduct an initial, voluntary phase in the experiment, as is required under the *Experiments Order*.[20] AT&T states that it plans to commence an "initial" stage of the experiment in which it will "seek to encourage to the greatest extent possible a voluntary migration of its existing customers for wireline TDM services,"[21] but it does not state when that initial stage will begin.[22] At the same time, AT&T has proposed specific dates, dates that are **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** to be sure,[23] when it plans to seek authority to grandfather and then discontinue legacy retail and wholesale services. But given how long it has taken AT&T just to get to this point, there is no basis for concluding that

[20] *See Experiments Order* ¶ 33 (holding that the Commission will consider discontinuance requests "*[a]fter successful initiation of an experiment*") (emphasis added).

[21] AT&T Plan at 1.

[22] Perhaps AT&T omitted a start date for the initial stage of its proposed experiment because it believes that it does not need to seek prior Commission approval for this stage. Indeed, AT&T acts at times as though this initial stage has already begun. For example, it refers in its proposal to the "current stage of the trial" (AT&T Plan at 47) and is hastily pressing forward with a media campaign to publicize it, *id.* at 17-20. But even an initial voluntary phase of a service-based experiment requires Commission approval. *See Experiments Order* ¶ 33 ("All proposals will be subject to public comment and thorough Commission evaluation of whether initiation of the proposed experiment is in the public interest.").

[23] *See* AT&T Plan, Exhibit D. It is worth noting that AT&T has taken an overly broad approach to designating information contained in its proposal as confidential or highly confidential. For example, the centerpiece of the proposal is the grandfathering and discontinuance of legacy TDM-based services, but AT&T has chosen to hide the dates on which it expects to grandfather and withdraw those services from the public. *See id.*

AT&T will be able to commence the trial, at least for some services, before the dates it has proposed for grandfathering legacy services. Therefore, it is impossible to assess whether AT&T has proposed sufficient time for the required, initial voluntary stage of the trial.

*Second*, while AT&T states that it will try to encourage as many customers as possible to voluntarily migrate away from its wireline TDM-based services during the initial phase of the experiment,[24] it has not developed key packet-based replacement services for retail business customers and wholesale customers. For example, AT&T states that it is still "in the process of developing a wireless business phone product," and it gives no indication as to when this product will be ready.[25] Similarly, AT&T states that it is "working diligently to develop IP replacement services . . . for resale to wholesale customers," as well as "an IP-based alternative to [its Local Wholesale Complete] product," but "it is likely" that these services will not be available "until

[24] AT&T appears to be paving the way for a "voluntary migration" of its existing customers in other parts of the country away from legacy TDM-based services by substantially increasing its rates for those services. *See, e.g.*, AT&T, Accessible Letter No. CLECAM14-033, "(RATE CHANGES) Business ISDN Direct Rate Increases – IL, IN, MI, OH, WI" (dated Mar. 14, 2014), *available at* https://clec.att.com/clec/access_letters/view.cfm?CPSWorkplace/getContent?objectStoreName=Accessible.__.Letters&objectType=document&guestid=P8guest&id={FA0D4278-B2E6-4005-A7B1-D1B784A035F4} (providing notice of intent to increase retail rates for Business ISDN services in the AT&T Midwest Region by approximately 25 percent, effective May 1, 2014); AT&T, Accessible Letter No. CLECC13-047, "(RATE CHANGES) Business Access Line, Trunk, and DID Rate Increase – CA" (dated Dec. 30, 2013), *available at* https://clec.att.com/clec/access_letters/view.cfm?CPSWorkplace/getContent?objectStoreName=Accessible.__.Letters&objectType=document&guestid=P8guest&id={D25B80D2-A19E-4C67-A818-9B683F907F75} (providing notice of intent to increase retail rates for Single and Multiline Business Access Lines in California by 20 percent (from $39.50 to $47.40), effective February 1, 2014); AT&T, Accessible Letter No. CLECC13-044, "(RATE CHANGES) Centrex Primary Line Rate Increases – CA" (dated Dec. 30, 2013), *available at* https://clec.att.com/clec/access_letters/view.cfm?CPSWorkplace/getContent?objectStoreName=Accessible.__.Letters&objectType=document&guestid=P8guest&id={B00C48A3-BABB-4BD4-B766-A9B66BD6E243} (providing notice of intent to increase retail rates for Centrex Primary Lines in California by approximately 20 percent, effective February 1, 2014).

[25] AT&T Plan at 13.

the trials already are underway."[26] It is impossible for the FCC or interested parties to assess a proposed experiment featuring services that do not yet exist.

*Third*, although the *Experiments Order* directs applicants to submit detailed information regarding the impact of their proposed experiments on wholesale customers,[27] AT&T has not even finished assessing the extent to which wholesale customers purchase existing TDM-based services in the selected wire centers. Instead, AT&T explains that it "is continuing to research the specific extent of wholesale activity in each wire center, and will supplement this filing at an appropriate time to incorporate information regarding such activity."[28] In addition, AT&T cryptically states that it plans to address wholesale issues "by proposing additions to the trials themselves or through existing processes under the Communications Act and the Commission's rules."[29] AT&T does not explain what these "additions" or "processes" might entail.

*Fourth*, AT&T acknowledges that its semi-fixed wireless service does not currently comply with the 911 conditions set forth in the *Experiments Order*. There, the Commission held that "any service-based experiment can in no way diminish consumer access to 911/E911

[26] *Id.* at 47. One month after filing its proposal, AT&T still "has no update" on "the [replacement] products that will be available for wholesale customers" during the experiment. Letter from Christopher Heimann, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, GN Dkt. Nos. 13-5 & 12-353, Attachment, at 10 (filed Mar. 26, 2014) ("AT&T Mar. 26, 2014 Letter"); *see also* Letter from Robert C. Barber, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, GN Dkt. Nos. 13-5 & 12-353, at 1 & Attachment (filed Mar. 27, 2014) (providing no new details on the packet-based replacement products that will be available to wholesale customers in the Carbon Hill and Kings Point wire centers).

[27] *See Experiments Order*, Appendix B, ¶ 35.

[28] AT&T Plan n.98.

[29] AT&T Proposal at 10.

emergency services,"[30] but AT&T indicates that it has not yet developed the upgrades necessary to provide users of its Wireless Home Phone service with "an [Automatic Location Identification ('ALI')] function to emulate the customer's experience with wireline TDM service."[31] This is no surprise—when marketing this product, AT&T tells its customers that they "may have to provide [their] location address to the 911 operator."[32] This issue has generated significant concern among local leaders and law enforcement officials in Carbon Hill. At a recent public hearing on the proposed experiment, a local official placed a trial 911 call from a mobile device, and the emergency operator identified the call as originating from "several blocks away" from the caller's actual location.[33] According to the local police dispatcher, it is clear that AT&T "still has some bugs to work out" because this "could have been a problem if someone really needed help."[34] Although AT&T states that it "will not seek to grandfather its TDM-based voice services until these enhancements are available,"[35] it is not clear whether this process will be completed before the initial phase of the experiment begins. Indeed, AT&T recently told the Commission that it expects to add an ALI function to its Wireless Home Phone service **[BEGIN**

[30] *Experiments Order* ¶ 39.

[31] AT&T Plan at 23-24; *id.* at 24 ("[W]e are developing enhancements that will allow AT&T to send [Master Street Address Guide] information to the appropriate PSAP while the device is at a registered service address.").

[32] AT&T Wireless Home Phone, http://www.att.com/shop/wireless/devices/wirelesshomephone.html (last visited Mar. 29, 2014) ("AT&T Wireless Home Phone Website").

[33] *See Uncertainties in AT&T's Transition Plan Make It Hard to Assess*, *supra* note 4, at 7.

[34] *See id.* at 7, 8.

[35] AT&T Plan at 24.

**CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**[36] but the proposal states that AT&T will start grandfathering consumer TDM-based voice services in **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**.[37]

*Fifth*, AT&T acknowledges that its Wireless Home Phone and Home Phone with Internet services are not compatible with a number of important analog data devices and services (*e.g.*, home security systems, medical alert devices, and credit card readers), and that it will not develop the enhancements needed to ensure such compatibility for some time.[38] In the *Experiments Order*, the Commission stated that it must "be able to evaluate in detail the impact of [proposed network] changes on [these] devices and services."[39] This is not possible for AT&T's current proposal.

[36] AT&T Mar. 26, 2014 Letter, Attachment, at 9. It is worth pointing out that AT&T seeks to assure members of the public safety community that their concerns about the experiment will be addressed, *see* AT&T Plan at 23, but AT&T will not share the "estimated timeline" for one of the relevant upgrades with the public. *See* AT&T Mar. 26, 2014 Letter, Attachment, at 9.

[37] AT&T Plan, Exhibit D.

[38] *See id.* at 14-15; *see also* AT&T Wireless Home Phone Website ("Not compatible with home security systems, fax machines, credit card machines, and medical alert/monitoring systems."). Even though AT&T's Wireless Home Phone and Home Phone with Internet services are not currently compatible with certain of the analog data devices and services listed in AT&T's compatibility chart, AT&T indicates "Y" (for "Yes") for these services. *See* AT&T Plan at 14. Only in the chart's endnotes does AT&T explain that its compatibility enhancements are currently in development and that the enhancements will not be introduced **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]** a fact that AT&T will not share with the public. *See id.* at 15.

[39] *Experiments Order*, Appendix B, ¶ 5.

*Sixth*, AT&T states that "TTY compatibility and accessibility for Wireless Home Phone . . . is being carefully assessed," but has not yet been developed.[40] Here again, AT&T has failed to comply with the *Experiments Order*. In the *Order*, the Commission held that any experiment must "comply[] with disability accessibility requirements," including "the provision of TRS."[41] AT&T states that it "will not take any action to grandfather or discontinue service to a customer with assistive technology that is known to be incompatible with AT&T's replacement services," but the fact remains that key aspects of AT&T's proposal for achieving accessibility cannot be reviewed as part of the proposal.[42]

*Seventh*, AT&T's proposal does not "maintain [the] universal service status quo" as required under the *Experiments Order*.[43] There, the Commission presumed that applicants "will maintain [eligible telecommunications carrier ('ETC')] status" and comply with other universal service rules during the experiment.[44] The Commission further held that "[b]ecause we do not wish to foreclose the opportunity for worthy experiments that may require some technical deviations from the current regulatory requirements . . . applicants may attempt to rebut these presumptions," but "applicants will bear a heavy burden in doing so."[45] In its experiment proposal, AT&T does not seek consent for "technical deviations" from current universal service

[40] AT&T Plan at 15; *see also id.* at 39; AT&T Mar. 26, 2014 Letter, Attachment, at 5 (explaining that AT&T's Wireless Home Phone service will be compatible with assistive technology devices "once AT&T has implemented the circuit switched data enhancement").

[41] *Experiments Order*, Appendix B, ¶¶ 29-30.

[42] *See* AT&T Plan at 15.

[43] *Experiments Order*, Appendix B, ¶ 32.

[44] *Id.*

[45] *Id.*

rules—AT&T seeks to escape its ETC obligations altogether.[46] Accordingly, AT&T should have filed a request for forbearance from or waiver of those obligations.[47] Instead, AT&T merely states that it "will demonstrate how it will satisfy the universal access" requirements in the *Experiments Order* "in other ways and elaborate on why such relief is appropriate" when it files "a subsequent pleading" on some unidentified date.[48] AT&T should have filed its request for relief simultaneously with its experiment proposal so that the Commission could assess how universal access will be maintained for the duration of the experiment before it approves the experiment.

*Eighth*, AT&T's proposed experiment covers an extremely small sample area that is not remotely representative of the American population or AT&T's existing customer base. In the *Experiments Order*, the FCC "strongly encourage[d] providers to conduct experiments in a diversity of arenas . . . in urban, rural, and suburban areas . . . that involve differences in population density and other demographics, terrain, weather conditions, and other factors relevant to users' experience with communications networks."[49] As Commissioner Pai put it,

---

[46] *See* AT&T Plan at 39-40 (explaining that AT&T does not plan to comply with its ETC obligations in the two wire centers at issue after the initial phase of the experiment).

[47] A forbearance proceeding under Section 10 of the Act, 47 U.S.C. § 160, would be clearly more appropriate than a waiver proceeding to evaluate AT&T's claims that, among other things, "requiring a carrier to maintain its ETC status is unnecessary to protect the public interest" and that "given the robust competition AT&T faces from wireless, cable MSOs and other wireline providers of broadband, there is no basis for limiting the way in which AT&T and other ETCs may structure their services if those limits do not apply to competitors as well." AT&T Plan at 42.

[48] *Id.* at 39-40, 43.

[49] *Experiments Order*, Appendix B, ¶ 3.

"trials should reflect the geographic and demographic diversity of our nation."[50] AT&T's proposed wire centers do not satisfy this standard.

To begin with, because AT&T did not include an urban wire center for its experiment, the experiment will yield no meaningful information about the impact of the TDM-to-IP transition on customers in urban areas. This is significant because, among other reasons, urban areas have larger numbers of retail business and wholesale customers than rural and suburban areas. Thus, an experiment in the rural Carbon Hill, AL and suburban Kings Point, FL wire centers will not contain a sufficient sample size of wholesale customers to generate reliable data about the effect of the transition on such customers (*e.g.*, whether AT&T has the operational capabilities to convert large numbers of wholesale customers from legacy TDM-based inputs to packet-based inputs, including the systems and processes for pre-ordering, ordering, installation, maintenance and billing of these inputs).

In addition, the Carbon Hill and Kings Point wire centers are both in warm weather climates, which will prevent AT&T from discovering and resolving issues that may arise in colder weather. Furthermore, while less than 65 percent of the U.S. population is White and Non-Hispanic,[51] 95 percent of the population in Carbon Hill and 84 percent of the population in Kings Point fits this description. This unrepresentative sample is unlikely to yield results (*e.g.*, on the issues consumers face when migrating from legacy TDM-based voice services to IP voice services) that could be generalized across the population as a whole.

---

[50] *Id.*, Pai Statement.

[51] *See* U.S. Census Brief, *The White Population, 2010*, at 3 (issued Sept. 2011), *available at* http://www.census.gov/prod/cen2010/briefs/c2010br-05.pdf.

*Finally*, AT&T's proposed experiment is unlikely to yield meaningful results even for the demographic groups that it does cover. In the *Experiments Order*, the FCC explained that it would be key to understand "whether the data would be suitable to make statistical inferences about the performance of the experiment areas."[52] Specifically, the Commission asked, "[i]f only a small number of experimental units will be involved, how will the data be analyzed so that meaningful quantitative conclusions are possible?"[53] AT&T's proposed wire centers cover approximately 70,000 people,[54] or approximately 0.02 percent of the U.S. population, yet AT&T provides no indication as to how it expects to extrapolate meaningful conclusions from this sample.

Contrary to the guidelines established in the *Order*,[55] AT&T also does not provide a detailed description of the types of data it plans to collect or the metrics it plans to use. And the scant description AT&T does provide offers no basis for concluding that the proposed experiment will yield reliable data. For example, AT&T plans to "provide a summary of trial-specific customer issues" based on a selection of submissions to AT&T's website and calls to AT&T customer care centers.[56] It is highly unlikely that this apparently ad hoc process would

[52] *Experiments Order* ¶ 52.

[53] *Id.*

[54] AT&T Plan at 5.

[55] *See Experiments Order* ¶ 34 (stating that the Commission expects it will need to evaluate, among other things, "proposed metrics for measuring success"); *id.*, Appendix B, ¶¶ 49-58 (stating that "[i]t will be important to the Commission's evaluation of proposals to understand each data type to be collected in an experiment" and "suggest[ing] various categories of data that might be reasonable to measure, depending on the specific nature of the experiment proposed").

[56] AT&T Plan at 53.

produce reliable or statistically significant data regarding issues that customers may face during the experiment.

Nor has AT&T even selected the "control wire centers" to which it will compare the data from Carbon Hill and Kings Point. The Commission highlighted the importance of selecting proper control groups in the *Order* and stated that it "will need to understand how to ensure the selection of the control group does not produce misleading or biased results."[57] By neglecting to select its control groups prior to proposing its experiment, AT&T has deprived the Commission of the opportunity to conduct this review.

### C. AT&T's Proposed Treatment Of Wholesale Services Is Incomplete And Inconsistent With The *Experiments Order*

In the *Experiments Order*, the Commission established a clear policy that incumbent LECs may not use service-based experiments as a means of evading meaningful regulation of wholesale services or of otherwise harming wholesale customers. In particular, the Commission explained that an incumbent LEC conducting a service-based experiment must offer packet-based services that are "comparable" to legacy TDM-based wholesale services at rates, terms, and conditions that are "equivalent" to those currently offered for the TDM-based wholesale services.[58] To that end, the *Order* "requires that service-based experiments maintain a competitor's access to an applicant's network" and requires that any proposal for a service-based experiment include a commitment to ensure, among other things, that

[57] *Experiments Order*, Appendix B, ¶ 51.

[58] *Experiments Order* ¶ 59.

(1) "access provided during the experiment – whether provided through unbundling, resale, or purchase of special access – is functionally equivalent to that provided immediately before the experiment;"

(2) "the prices or costs of such access do not increase as a result of the experiment;" and

(3) "neither wholesale nor retail customers are penalized as a result of the experiment."[59]

As discussed below, AT&T's proposal is inconsistent with the spirit and the letter of these requirements in a number of respects.

***1. Availability Of Replacement Inputs***

AT&T's proposal fails to ensure that functionally equivalent replacements for UNEs and TDM-based special access inputs will be available to wholesale customers. As explained above, AT&T has failed to develop several wholesale replacement products. But AT&T has also overstated the availability of the few replacement products it has developed. For example, in the pleading accompanying its proposal, AT&T claims that it "has identified the replacement products that already are available as alternatives to current legacy TDM services – such as the AT&T Switched Ethernet (ASE) service that is available to replace DSn-level special access service and high capacity loop and transport UNEs – and will provide customers who choose to do so the opportunity to transition to those alternatives in th[e] initial phase of the trial."[60] However, in one of the dozens of highly confidential product data sheets appended to its proposal, AT&T indicates that in the Kings Point wire center, an AT&T replacement product is currently available for **[BEGIN HIGHLY CONFIDENTIAL]** [redacted]

[59] *Id.*, Appendix B, ¶ 35.

[60] AT&T Proposal at 29.

[redacted] **[END HIGHLY CONFIDENTIAL]**[61] Also, the AT&T replacement products listed **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** on the data sheet include both ASE and AT&T's "Network Based IP VPN Remote Access" service.[62] It is not clear whether this means that *both* ASE and the IP VPN service are available or that only either ASE *or* IP VPN service is available **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** Furthermore, while AT&T asserts that a competitive replacement product (*i.e.*, a service offered by provider other than AT&T) for AT&T's DS1 service is available in **[BEGIN HIGHLY CONFIDENTIAL]** [redacted] **[END HIGHLY CONFIDENTIAL]** customer locations at issue in Kings Point, the products listed—best efforts Internet access service (105 Mbps downstream/768 Kbps upstream) from Comcast, "satellite" service from HughesNet, DISH Network, and DirecTV, and mobile wireless services from Sprint and Verizon Wireless[63]—are obviously not viable substitutes for the dedicated services at issue.[64]

### *2. Rates, Terms, And Conditions For Replacement Inputs*

AT&T does not explain how it will ensure that replacement inputs will be available on rates, terms and conditions that are equivalent to those currently offered for UNEs and TDM-based special access. In particular, AT&T has chosen not to disclose the rates, terms, and

---

[61] AT&T Plan, Exhibit E, at #WSA2. It is also not entirely clear from AT&T's proposal whether a replacement product is available for the carriers currently "purchasing DS1 special access circuits" in the Carbon Hill wire center. *Id.* at 46.

[62] *Id.*, Exhibit E, at #WSA2.

[63] *Id.*

[64] *See, e.g.*, Comments of BT Americas, Cbeyond, EarthLink, Integra, Level 3 and tw telecom, WC Dkt. No. 05-25, at 51-57 (filed Feb. 11, 2013).

conditions on which it will offer packet-based services to wholesale customers during the initial voluntary phase or any subsequent phase of the proposed experiment. This omission makes it impossible for the Commission to ensure that AT&T will comply with the requirements for wholesale services set forth in the *Experiments Order*, including the requirement that "the prices or costs" of access that is functionally equivalent to UNEs or TDM-based special access "do not increase as a result of the experiment."[65]

Nor is it appropriate to delay consideration of this issue until AT&T seeks authority under Section 214 of the Act[66] to grandfather TDM-based local transmission services. This is because wholesale customers must be able to obtain equivalent rates, terms and conditions for packet-based inputs *from the beginning* of any experiment in which TDM-based inputs will ultimately be eliminated. It often takes time for wholesalers to transition existing retail business customers from legacy TDM-based inputs to packet-based inputs. Such a transition requires careful planning and cooperation from the incumbent LEC in order to avoid extended service outages or service degradation. Wholesale customers must therefore begin the process of cutting over existing customers as soon as possible, likely during the initial stage of the experiment. Moreover, given the problems that can arise when cutting over existing customers from TDM-based inputs to packet-based inputs, wholesale customers will seek to initiate service to as many new customers as possible using packet-based inputs. Thus, competitors that serve customers in the Kings Point wire center will have little choice but to participate in the experiment during the initial "voluntary" stage. The absence of *any* information about the prices, terms, and conditions

[65] *Experiments Order*, Appendix B, ¶ 35.

[66] 47 U.S.C. § 214.

on which AT&T will offer wholesale packet-based inputs such as Ethernet makes the requisite business planning impossible.

#### *3. Penalties Associated With Purchasing Replacement Inputs*

AT&T does not explain how it will ensure that wholesale customers are not penalized as a result of the experiment. More specifically, wholesale customers that participate in the experiment may incur shortfall penalties, early termination fees for individual circuits, or other penalties as they replace the TDM-based circuits they currently purchase under AT&T's exclusionary, lock up special access "discount" plans with the packet-based inputs offered during the experiment. It is possible that the volumes of TDM-based special access services at issue in the Carbon Hill and Kings Point wire centers are not large enough to implicate shortfall penalties or other obstacles to purchasing packet-based inputs covered by these "discount" plans. But AT&T bears the burden of demonstrating that wholesale customers will not incur penalties as a result of its proposed experiment,[67] and it has not attempted to meet that burden.

#### *4. Availability of Copper Loops*

AT&T states that wholesale customers will "have the opportunity," apparently for the duration of the trial, "to obtain bare copper loops and utilize their own electronics to provide high capacity services to their end user customers."[68] But AT&T fails to provide any relevant details regarding this offer. In particular, AT&T does not discuss (1) the extent to which such loops exist today (*i.e.*, the locations to which such loops have not been replaced in whole or in part by fiber); (2) whether the loops are of sufficient length and in sufficient condition to provide

[67] *Experiments Order*, Appendix B, ¶ 35.

[68] AT&T Plan at 47.

Ethernet-over-copper services; or (3) AT&T's plans for removing or disabling these facilities in the future.

### D. AT&T's Proposed Treatment Of Retail Voice Services Is Inconsistent With The *Experiments Order* And Inappropriate For A Service-Based Experiment

In its proposal, AT&T plans to offer its U-verse Voice, U-verse Business Voice, and Wireless Home Phone services as replacements for its legacy TDM-based voice services.[69] Although the Commission has not determined the regulatory classification of these services, the proposal assumes that they are almost entirely unregulated—and thus, assumes that AT&T need not comply with various wholesale obligations when providing the services. In so doing, AT&T skews the conditions for the experiment against wholesale customers and competition more generally.

In the proposal, AT&T assumes that managed, fixed interconnected VoIP services (*e.g.*, its U-verse Voice and U-verse Business Voice services) "are properly classified as information services."[70] But the FCC has not yet decided whether a fixed, managed VoIP service is a telecommunications service, telephone exchange service, exchange access service, an information service, or some combination of these.[71] AT&T likely assumes that this issue will be resolved in its favor to avoid the resale, interconnection, and other statutory obligations applicable to incumbent LECs.

---

[69] *See id.* at 12-13.

[70] *Id.* at 52.

[71] Some parties have argued that VoIP service can qualify as a telephone exchange or exchange access service even if it is classified as an information service. *See, e.g.*, Comments of Cablevision Systems Corporation and Charter Communications, Inc., WC Dkt. No. 11-119, at 9 (filed Aug. 15, 2011) (explaining that "regardless whether VoIP is an information service or a telecommunications service, the provision of VoIP service constitutes 'telephone exchange service' or 'exchange access'").

Similarly, AT&T states that its Wireless Home Phone service is a commercial mobile radio service ("CMRS"),[72] and AT&T assumes that it is not a LEC when providing the service. The statutory definition of "local exchange carrier" does exclude providers of CMRS, unless the FCC decides to treat a provider of CMRS service as a LEC.[73] But the Commission has not yet decided whether to treat a provider of semi-fixed wireless voice services, such as AT&T's Wireless Home Phone service, as a LEC.[74] The consequences of AT&T's assumption that the FCC would classify its semi-fixed wireless service as a non-LEC service are, again, significant. Such a classification would mean that AT&T would avoid complying with, among other requirements, certain key wholesale regulations applicable to incumbent LECs in Section 251 of the Act, such as the resale requirement under Section 251(c)(4)[75] and direct interconnection obligations under Section 251(c)(2).[76]

AT&T's assumption that its VoIP and Wireless Home Phone services fall into the least regulated of the possible classifications is inappropriate for several reasons. *First*, given that AT&T is clearly positioning these services as replacements for and successors to its legacy

---

[72] *See, e.g.*, AT&T Plan at 12, 15, 23, 53. By asserting that its Wireless Home Phone service is a CMRS service, AT&T concedes that Wireless Home Phone is a telecommunications service. *See, e.g., Orloff v. FCC*, 352 F.3d 415, 418 (D.C. Cir. 2003) ("A provider of CMRS (commercial mobile radio service) such as Verizon is a 'common carrier' subject to Title II of the Communications Act.").

[73] *See* 47 U.S.C. § 153 (32) ("Such term does not include a person . . . engaged in the provision of a commercial mobile service under section 332(c) of this title, except to the extent that the Commission finds that such service should be included in the definition of such term.").

[74] *See id.* (defining "local exchange carrier" as "any person that is engaged in the provision of telephone exchange service or exchange access").

[75] *Id.* § 251(c)(4).

[76] *Id.* § 251(c)(2).

wireline local exchange and exchange access services, there is every reason to conclude that AT&T should be treated as a LEC when providing these services. In fact, the definition of telephone exchange service in the Communications Act, by its terms, contemplates successor services utilizing new technologies that provide the same functionalities as legacy circuit-switched local exchange service.[77]

*Second,* AT&T's proposed treatment of these replacement voice services is inconsistent with the *Experiments Order*. Under the *Order,* AT&T's proposal must ensure that wholesale customers will be able to obtain replacement services for resale at prices equivalent to those for TDM-based services.[78] But AT&T does not state any intention to offer its VoIP and Wireless Home Phone services for resale. And it states that the unidentified IP replacement services that it will offer for resale will be made available "on commercial terms"[79] while TDM-based services currently offered for resale must be made available "at wholesale rates."[80]

*Third,* by assuming that it is not subject to incumbent LEC obligations under Section 251 when providing its VoIP and semi-fixed wireless services, AT&T avoids addressing any operational issues that might otherwise arise. For example, if AT&T is not required to offer its

---

[77] *See, e.g.*, Comments of Senators Stevens and Burns, *Federal-State Joint Board on Universal Service*, CC Dkt. No. 96-45, n.1 (filed Jan. 28, 1998) (explaining that Congress' 1996 amendment of the "telephone exchange service" definition to include "comparable" service "would not have been necessary had Congress intended to limit telephone exchange service to traditional voice telephony," and that "[t]he new definition was intended to ensure that the definition of local exchange carrier, which hinges in large part on the definition of telephone exchange service, was not made useless by the replacement of circuit switched technology with other means . . . of communicating information within a local area").

[78] *Experiments Order*, Appendix B, ¶ 35.

[79] AT&T Plan at 47.

[80] 47 U.S.C. § 251(c)(4).

VoIP or semi-fixed wireless services for resale under Section 251(c)(4) in an experiment, AT&T avoids having to process orders for and provision such services on a wholesale basis to resellers. Such an outcome is contrary to AT&T's own rationale for conducting service-based experiments. As AT&T has stated, a reason to hold technology trials or experiments is to understand the "operational difficulties for existing ILEC-CLEC arrangements" rather than "remain blind to all these challenges until the final stages" of the transition are underway.[81]

## III. THE COMMISSION SHOULD NOT APPROVE AT&T'S PROPOSED EXPERIMENT UNLESS AND UNTIL AT&T ADDRESSES THE DEFICIENCIES IN ITS PROPOSAL

### A. The Success Of The Technology Experiment Regime Depends On The Adoption Of Appropriate Requirements For AT&T's Proposal

In the *Experiments Order*, the Commission stated that the first round of service-based experiments it approves "will serve as a prototype that will be followed" in evaluating subsequent proposals.[82] According to the Commission, this approach will "set[] clear expectations for providers proposing successor experiments as to our expectations and requirements."[83] It will also make it "easier for the Commission and all stakeholders to compare data across different service-based experiments."[84] It is therefore critical that the Commission reject the AT&T proposal as filed and require AT&T to meet appropriate requirements for any future proposal it files. As discussed below, such requirements should be designed to ensure that (1) the proposal includes enough detail to enable the Commission and interested parties to conduct a meaningful review of all aspects of the experiment, (2) the proposal meets the necessary methodological requirements to ensure that the experiment will produce valuable and

[81] Reply Comments of AT&T, GN Dkt. No. 12-353, at 10 (filed Feb. 25, 2013).

reliable data, and (3) AT&T does not utilize the experiment in ways that harm wholesale customers and competition.

### B. AT&T Must Have Actually Developed And Begun To Deploy The Services And Enhancements It Seeks To Test In The Experiment Before Its Proposal Is Approved

No application for a service-based experiment should be approved for services that the applicant has not yet developed and begun to deploy. It should go without saying that there is no way for the Commission or interested parties to review an experiment proposal for services that do not exist. Nor can the Commission or interested parties be assured that these services will be ready for testing during the experiment if they are not deployed by the time the proposal is filed. In the case of the instant proposal, vague statements that AT&T "intends to make [such services] available" or that it is "working diligently to develop" them are insufficient.

In addition, the features of the newly developed services must meet the criteria (*e.g.*, for 911 capability and disabilities access) established in the *Experiments Order*. For example, as discussed in Part II above, the *Order* provides that "any service-based experiment can in no way diminish consumer access to 911/E911 emergency services,"[85] but AT&T's proposal does not currently satisfy this standard. The Commission should require AT&T to ensure that the ALI enhancement to the 911 capability of its Wireless Home Phone service is developed before its proposal is approved. AT&T should also be required to implement any "circuit switched data

---

[82] *Experiments Order* ¶ 29.

[83] *Id.*

[84] *Id.*

[85] *See id.* ¶ 39.

enhancement" necessary to ensure capability with accessibility devices for the disabled[86] before its proposed experiment is approved.

Similarly, the Commission should require AT&T to complete the development of enhancements to ensure compatibility of its Wireless Home Phone and its Home Phone with Internet services with important analog data devices and services (*e.g.*, alarm monitoring, medical alert and credit card validation applications) prior to approval of the experiment. This will allow such enhancements to be assessed in the context of the experiment proposal, and will allow their impact on consumers to be evaluated during any subsequent experiment.

### C. AT&T Must Propose An Experiment That Encompasses A Sufficiently Diverse Set Of Consumers And Customer Types

Consistent with the framework of the Experiments Order, the Commission should approve only those experiments from which meaningful and reliable conclusions can be extrapolated. It follows that AT&T must propose an experiment that includes a sample size that is larger and more representative of the overall population and AT&T's existing customer base than is the case with its current proposal. More specifically, AT&T should include an urban wire center in its experiment so that it can identify and address operational issues that are likely to arise during the transition in urban areas. In particular, the inclusion of an urban wire center in the experiment would allow AT&T to test whether it will be able to smoothly and efficiently transition large numbers of wholesale customers from legacy TDM-based inputs to packet-based inputs. AT&T should also include wire centers that are located in more diverse climates and where the populations are more diverse demographically than is the case with Carbon Hill, Alabama and Kings Point, Florida.

[86] *See* AT&T Mar. 26, 2014 Letter, Attachment, at 5.

### D. AT&T Must Treat The Wholesale Services And Retail Voice Services It Offers During The Experiment In An Appropriate Manner

As explained in Part II above, AT&T has inappropriately chosen to offer IP and packet-based wholesale services and retail voice services on rates, terms, and conditions that are inconsistent with the letter and the spirit of the *Experiments Order* and that threaten to harm both wholesale customers and competition. AT&T should be required to comply with wholesale regulations designed to address these problems. Of course, to the extent these regulations are different from the applicable requirements under existing law, they would apply only for purposes of the experiment.[87]

*First*, the Commission must require AT&T to publicize the rates, terms, and conditions on which it will offer access to its packet-based local transmission facilities during the experiment. Those rates, terms, and conditions must ensure that, consistent with the *Experiments Order*, AT&T offers packet-based local transmission services that are "comparable" to legacy TDM-based wholesale services at rates, terms, and conditions that are "equivalent" to those currently offered for TDM-based wholesale services.

*Second*, AT&T must explain in detail how wholesale customers will avoid incurring penalties, such as any early termination penalties and short-fall penalties applicable under its exclusionary special access purchase arrangements, when switching from TDM-based special access services to packet-based or other replacement services offered by AT&T during the experiment.

---

[87] *See Experiments Order* ¶ 25 (holding that "decisions about how to address or resolve a problem or dispute during an experiment will not constitute a determination by the Commission or service providers that such an approach represents binding legal or policy obligations outside the context of the experiment").

*Third*, AT&T must provide information regarding the location, length, and condition of copper loops in the relevant wire centers. Without such information, AT&T's offering of access to copper loops is meaningless because wholesale customers cannot assess the extent to which they could use the copper facilities to provide service (*e.g.*, Ethernet-over-copper services).

*Fourth*, to the extent that AT&T plans to replace its TDM-based local exchange service with VoIP and/or semi-fixed wireless voice services, AT&T must comply with the statutory provisions and regulations applicable to providers of TDM-based telephone exchange service. These include the resale requirements of Section 251(c)(4) of the Act. Again, treating AT&T as subject to these requirements during the experiment could allow AT&T and wholesale customers to address operational issues that may arise without any concession by AT&T or any determination by the Commission that such requirements apply to AT&T's VoIP and semi-fixed wireless services outside of the experiment.

## IV. CONCLUSION

For all of the foregoing reasons, the Commission should reject AT&T's proposal and require any future proposal for a service-based experiment to comply with the requirements discussed in Parts III.B-D above.

Respectfully submitted,

*/s/ Thomas Jones*

Thomas Jones
Nirali Patel
Matthew Jones
WILLKIE FARR & GALLAGHER LLP
1875 K Street, NW
Washington, DC 20006
(202) 303-1000

*Counsel for Cbeyond, Integra, Level 3, and tw telecom*

March 31, 2014

Before The
Federal Communications Commission
Washington, D.C. 20554

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

**COMMENTS OF COMPTEL**

Karen Reidy
COMPTEL
1200 G Street, NW
Suite 350
Washington, D.C. 20005
(202) 296-6650 phone

March 31, 2014

## TABLE OF CONTENTS

Before The
Federal Communications Commission
Washington, D.C. 20554

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

**COMMENTS OF COMPTEL**

COMPTEL respectfully submits these comments, pursuant to the Commission's Public Notice released on February 28, 2014 (DA 14-285), with regard to the AT&T Proposal for Wire Center Trials submitted on February 27, 2014 in the above-referenced dockets.[1]

**Introduction and Summary**

COMPTEL members transform the wholesale inputs they obtain from AT&T into competitive, innovative retail products, primarily for customers in the retail business market. Wholesale access is vital and is the lynchpin for achieving the enduring value of competition. With an effective wholesale market, retail competition will thrive, spurring economic growth, job creation and even greater innovation. As such, our comments focus on the gaps and deficiencies in AT&T's proposal as it applies (or does not apply) to its

[1] Letter from Christopher M. Heimann, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket Nos. 13-5, 12-353, (filed Feb. 27, 2014) ("AT&T Proposal for Wire Center Trials") at Attachs.("AT&T Plan").

wholesale consumers. The comments also highlight some of the other areas where AT&T's Plan is deficient in spurring the technological transitions, preserving core statutory values, or assisting in the making of data-driven decisions with regard to the transitions. While AT&T's trials offer a narrow and very limited test, we look forward to a variety of proposals that will enable the Commission and industry to paint a complete picture of how the transition will impact the services and applications offered across the country, in all markets.

AT&T has proposed a plan for conducting TDM to all-IP trials in two wire centers (Carbon Hill, Alabama and King Point, Florida) – the AT&T Wire Center Trial Operating Plan (the "AT&T Wire Center Plan" or the "AT&T Plan").[2] While some parties have proposed trials to test the impact of the transition on a particular product/service,[3] AT&T claims that its trial will "replicate on a small scale the broader TDM sunset and migration to all-IP networks and services."[4] AT&T goes so far as to state that "[e]xcluding particular customer segments and/or services (such as dedicated or wholesale services) from the trial will deprive the Commission, consumers, industry and others of important real-world experience needed to prepare for the IP

[2] To be precise, AT&T has actually proposed a *partial* plan to convert its network from a TDM-based architecture to IP in that AT&T is quite clear that the end-point will be all IP, but that the path to that end-point for some customers/services – in particular, wholesale customers and the critical inputs they require such as interconnection and last-mile access – remain unanswered. In our comments below, we focus on the gap in AT&T's filing that claims it will achieve an all-IP network without providing any details as to how its competitors will obtain last-mile access to serve their business customers.

[3] *See e.g.*, Application of Iowa Network Services Inc. for Authority to Conduct a Service-Based Experiment Concerning the TDM-to-IP Transition for Centralized Equal Access Service, *In the Matter of Technology Transition*, GN Docket No. 13-5, filed Feb. 20, 21014.

[4] AT&T Plan at 2.

transition."[5] Additionally, the Commission has stated that the "purpose of these experiments is to speed market-driven technological transitions and innovations by preserving the core statutory values as codified by Congress – public safety, ubiquitous and affordable access, competition, and consumer protection – that exist today."[6] AT&T seems to agree stating that its plan "explains how AT&T will preserve and protect the enduring principles and values articulated by the Commission in its order authorizing trials."[7]

Unfortunately, the experiment proposed by AT&T does not live up to its stated intent or the Commission's criterion for wholesale services (in addition to certain other devices and services). It lacks the necessary elements to spur a voluntary transition by wholesale customers to IP-based services. It also fails to offer a framework to demonstrate how competition could be fostered in an all-IP world. Namely, AT&T does not identify any replacement products (or "catch products" as AT&T refers to them) that meet the criterion established by the Commission in its *Technology Transitions Order* and that will allow AT&T's wholesale customers to continue to effectively serve their end-user customers in an all-IP world. As structured, AT&T is proposing to pull the foundation of business competition out from under the business market, without creating a replacement structure to protect business customers from seeing their choices dwindle and their prices climb. Therefore, AT&T's proposal does not offer a transitional path that preserves (as required by the Commission's *Technology Transitions Order*) at least one of

---

[5] *Id.*

[6] Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, *Technology Transitions, et al*, GN Docket No. 13-5, *et al*, FCC 14-5, ¶1 (Jan. 31, 2014)(" *Technology Transitions Order*").

[7] AT&T Plan at 1.

the core statutory values – competition.[8] The Commission should not consider any 214 application for wholesale products, and should put a halt to copper retirement, until AT&T offers sufficient replacement services that meet the Commission's standard of functionality and pricing equivalency. AT&T also makes inappropriate presumptions about the regulatory status of its services,[9] which the Commission must disregard. As AT&T's semi-fixed wireless and VoIP services are being proposed as replacements for and successors to its wireline local exchange service, AT&T is - and should be treated as - an incumbent LEC when providing the service. AT&T's proposal confirms the need for the Commission to move quickly on the managerial framework to guide the technology transition.

Indeed, with regard to many of the key wholesale inputs competitors will need to serve business customers, AT&T merely lists the replacement products as "TBD" or cites to products/services that it *already* offers in the market - in other words its proposal offers nothing new to test. We already know the status quo in the wholesale market has failed as a catalyst to transition the industry to IP technology. Instead, what is needed is a plan that outlines and tests <u>in detail</u> an Ethernet offering structured as a replacement wholesale input (i.e., with the flexibility to support a broad range of retail replacement services), <u>*and*</u> at pricing that sustains a

---

[8] We note that in those states that have implemented significant deregulation of AT&T's retail services, competition is also the tool that achieves the Commission's enduring value of consumer protection. Consequently, the issues raised herein *directly* impact no less than half of the Commission's stated objectives for these experiments.

[9] *See* AT&T Plan at n. 111 ["It is clear that any equal access obligations that are now captured in the provisions of the 1996 Act will no longer apply in an all-IP environment. For example, the dialing parity requirement established in 47 U.S.C. §251(b)(3) is imposed on Local exchange carriers." Thus, insofar as AT&T, as a VoIP provider, is not providing that service as a common carrier and no longer will provide telephone exchange service or exchange access, it no longer would be subject to that obligation. The provision also would be inapplicable to VoIP service, which is by its nature distance agnostic, because it is not properly classified as "telephone exchange service" or "telephone toll service."']

competitive retail market for business customers. In other words, a viable plan that would promote not only functioning networks, but also functioning markets. Namely, one that produces useful wholesale services, so that retail business customers can obtain their services in conformance with free market forces of competition and innovation.

The Commission, in the *Technology Transitions Order*, recognized the importance of ensuring "that comparable services are available during [each stage of] the experiment at equivalent prices, terms, and conditions. [And that] any proposal of an ongoing experiment of this kind would, in addition, offer to replace wholesale inputs with services that offer substantially similar wholesale access to the applicant's network."[10] However, while AT&T *asserts* that it has included in its plan a description "with details" of how it intends to proceed with respect to wholesale issues, noting the importance of transparency with regard to wholesale issues,[11] its plan *in reality* lacks any detail on functionality and pricing of replacement products – and in some cases it identifies no replacement product at all.

In Appendix B, the Commission outlined five (5) specific factors it would consider for experiments related to the transition of wholesale customers.[12] As we explain below, the AT&T Plan fails to meet any of these criteria with regard to its wholesale customers:

> **(1) Ensure that the same types of wholesale customers can continue to use its network:**
>
> AT&T provides no assurance with regard to continued use of its network, as it transitions from copper to fiber facilities and from TDM to IP technology, for wholesale customers that use unbundled elements. With regard to leasing DS1s and DS3s as UNEs, it merely states that it will "retire the TDM electronics and other facilities used to provide those TDM services (and UNEs)." It doesn't describe a

[10] *Technology Transitions Order* at ¶59

[11] *AT&T Proposal for Wire Center Trials* at 10.

[12] *Technology Transitions Order*, App. B, ¶35.

replacement product for these UNEs, nor does it explain why such services cannot continue to be offered over an IP network. Moreover, with regard to those wholesale customers that purchased the bare copper loop as a UNE, AT&T provides no discussion on what alternative will be available to these wholesale customers when AT&T retires the copper loop. With regard to its wholesale customers that purchase it Local Wholesale Complete, the solution is yet "TBD".

**(2) Ensure that the access provided during the experiment – whether provided through unbundling, resale, or purchase of special access – is functionally equivalent to that provided immediately before the experiment:**

While AT&T identifies "catch products" for its TDM special access services, it does not explain the functionality of these services. Using the description of AT&T's Switch Ethernet ("ASE") service in its publicly available Interstate Access Guidebook, AT&T's ASE "catch product" lacks key functionality such as the same potential quantity of devices served per customer, the same potential quantity of customers served per 100Mbp port, and the ability to synchronize packet flows to emulate TDM services.

**(3) Ensure that the prices or costs of such access do not increase as a result of the experiment:**

AT&T also does not provide pricing information for the "catch products" for its TDM special access services. Again, using its publicly available Interstate Access Guidebook, AT&T's "catch products" would result in *at least* nearly a 100% rate increase – and, in the case of a DS1, a 1000% rate increase – of existing DSn services.

**(4) Ensure that neither wholesale nor retail customers are penalized as a result of the experiment (e.g., purchases of alternative services count towards discounts for purchases outside of the experiment areas, early termination fees are waived if early termination is caused by the experiment):**

AT&T provides no discussion of this and, therefore, provides no such assurances.

**(5) Whether the experiment will have any other impact on the provider's wholesale customers.**

Given the near-complete lack of detail offered by AT&T as regards many of its wholesale offerings, it is impossible to comprehensively catalog the full range of impacts that its replacement offerings (when disclosed) will have on COMPTEL members and their customers. For instance, there is no reason why AT&T could not expand its Ethernet offering to include the packet synchronization and DSn interface capabilities needed to enable business customers to effect the transition to IP while preserving existing investment in customer premise equipment (CPE). Such a capability would place business customers on a footing equivalent to residential

> customers – after all, AT&T' "VoIP service" supports the same RJ-11 jack and interface that customers have equated to "phone service" for decades. Just as AT&T's IP network will provide residential customers an interface that will preserve the millions of handsets in the residential market, business customers should be able to participate in the IP transition without having to replace all of their terminal gear.

AT&T's proposal is not only deficient with regard to its wholesale customers, there are also substantial gaps with regard to other services and devices, as summarized in Section III below. While the purpose of the experiment is to develop information (which necessarily assumes that some questions will not be fully understood until the experiments are underway) it is important to note that AT&T's proposal starts with a number of critical services and devices not even having a replacement identified, including services and devices that the Commission has already deemed important. Certainly, with such an extensive list of deficiencies, one could ask why AT&T felt the need to propose these trials *now*. After months of chiding the Commission for not moving fast enough,[13] it is clear AT&T still has substantial gaps in its own view of what services it can and should offer.

Given that AT&T ignores the effect of the IP transition on its wholesale customers - thereby trivializing the effect the transition could have on the broader business market - and is still in the development stage for other key services, AT&T's proposal cannot be viewed as *comprehensive* overview of the impact of the transition or one that provides hope for the preservation of the core statutory values. Instead, it demonstrates the need for the Commission to implement the wholesale recommendations in the National Broadband Plan. Namely, that the Commission should (1) undertake a comprehensive review of its wholesale regulations and

---

[13] *IP Technology Transition Trials Proposed By FCC Met With Mixed Response*, Fierce Telecom, May 13, 2013, reporting an AT&T Senior EVP complaining "that further delays by the FCC in moving to such trials, which they themselves would control, creates more investment uncertainty." http://www.fiercetelecom.com/story/ip-technology-transition-trials-proposed-fcc-met-mixed-response/2013-05-13#ixzz2wnyLVaMb

"develop a coherent and effective framework . . . to ensure widespread availability of inputs for broadband services provided to small businesses, mobile providers and enterprise customers";[14] (2) ensure that rates, terms, and conditions for both TDM-based and packet-based special access services are just and reasonable;[15] (3) clarify statutory rights and obligations regarding interconnection, including IP interconnection;[16] and (4) "ensure appropriate balance in [the Commission's] copper retirement policies."[17]

## I. AT&T's Plan Does Not Ensure Continued Network Access to Wholesale Customers That Rely on Unbundled Network Elements

AT&T fails to address the impact of the transition on the availability of unbundled loops, a key wholesale product for last-mile access, merely stating the following:

> "[W]hile AT&T will continue to meet its wholesale obligations under Section 251(c) of the Act (including making UNEs available through the current stage of the trial), AT&T intends eventually not only to withdraw its legacy TDM services but also to retire the TDM electronics and other facilities used to provide those TDM services (and UNEs). At the same time, wholesale customers will have the opportunity to obtain bare copper loops and utilize their own electronics to provide high capacity services to their end user customers – TDM or IP or any other technology the wholesale customer desires to provision."[18]

There are two means for wholesale customers to order the unbundled loop from AT&T. For one, wholesale customers can order a bare copper loop and add their electronics to provide service to their end-user customers. The other is the purchasing DS1s and DS3s as an unbundled network element ("UNE") pursuant to Commission rules. AT&T's proposal does not address

---

[14] FCC, Connecting America: The National Broadband Plan, at 48 (Recommendation 4.7), rel. Mar. 16, 2010 ("National Broadband Plan").

[15] *Id.* (Recommendation 4.8).

[16] *Id.* at 49 (Recommendation 4.10).

[17] *Id.* at 48 (Recommendation 4.9).

[18] *AT&T Proposal for Wire Center Trials* at 29.

how wholesale purchasers will be able to continue to lease *either* form of unbundled loops pursuant to Section 251(c) as AT&T transitions from copper to fiber facilities and TDM to IP technology. More specifically, AT&T makes no proposal as to how it will introduce an alternative local loop transmission to the unbundled loop as it "retires" copper loops and discontinues offering DS1s and DS3s, let alone at reasonable prices that reflect the use of such services as wholesale inputs. Additionally, AT&T's proposal does not provide a replacement product for wholesale purchasers that lease a more complete set of network elements – namely, Local Wholesale Complete – which is currently used to serve millions of business lines at locations not needing DS1 level service.[19] The Plan merely lists it as "TBD."

*AT&T's proposal fails to identify a similarly priced, functionally equivalent alternative for the bare copper loop as an unbundled element under Section 251.*

The ability to lease the unbundled loop from the incumbent is one tool in competitors' ability to offer an affordable and innovative alternative to the incumbent's broadband services. As COMPTEL and competitive carriers have discussed in numerous pleadings to the Commission, competitors lease the unbundled copper loop from the incumbent and, by adding their own electronics to the loop, have transformed it into innovative and affordable Ethernet-over-copper services that they provide to their end-user customers, particularly to small and medium size businesses. Ethernet-over-copper has given small and medium size businesses an affordable choice for competitive, ultra-high-speed broadband service offerings, up to 100 Mbps, such as "triple play," HDTV, VoD, high-speed data, mid-band Ethernet, VoIP, high speed Internet access, videoconferencing, virtual private networks, PBX Extensions, and video surveillance.

[19] We understand AT&T to offer this bundled product pursuant to its obligations under Section 271.

Indeed, one incumbent recently touted how Ethernet-over-Copper – for which the CLEC relies on the availability of the unbundled loop at TELRIC rates pursuant to Section 251 of the Act and Commission implementing rules – provides not only one needed option but has created a significant portion of the competition in the broadband market.[20] We do not necessarily agree that the services created from Ethernet-over-Copper are *always* sufficient to satisfy an enterprise customer's demand, but we do agree that the availability of wholesale last mile access from the incumbent at just and reasonable rates can – and, to the extent possible under existing Commission rules, does – provide valuable competitive alternatives for business consumers.

AT&T's proposal fails to identify a similarly priced, functionally equivalent alternative to the bare copper loop as an unbundled element under Section 251. It is unclear what AT&T means by saying their wholesale customer will have the "opportunity" to obtain the bare copper loop throughout the experiment. AT&T is required to provide the unbundled bare copper loop until it "retires" it in accordance with Commission rules. Consequently, even where the copper loop can provide a viable last-mile solution, it is the threat of a "retirement" of the copper loop without offering a similarly priced and functionally equivalent alternative that poses the problem to wholesale customers, and the end-user customers they serve, as AT&T transitions from a copper to a hybrid or fiber loop.

While AT&T sometimes may replace the entire copper loop with fiber optic, it more commonly puts fiber in the feeder – a more economically attractive tactic than building fiber to the premise - and then lists that copper loop as unavailable to wholesale customers as an UNE.

---

[20] *CenturyLink's Petition* for Forbearance Pursuant to 47 U.S.C. §160(c) from Dominant Carrier Regulation and Computer Inquiry Tariffing Requirements on Enterprise Broadband Services, WC Docket No. 14-9, at 29-30 (filed Dec. 13, 2013); *See also, CenturyLink Reply Comments* at 29 ["Competitors Are Increasingly Using Copper Loops Successfully to Provide Enterprise Broadband Services."]

Currently, as a practical matter, bare copper is only useful as an input if it provides home-run connectivity between the customer premises and the central office where the wholesale customer can collocate its electronics and connect to its backhaul network. Consequently, having access to the copper loop at a remote terminal that can serve only a portion of the market (that had been serviceable from the central office) is unlikely to support competitive entry. Since AT&T's proposal provides no discussion of how its wholesale customers can still obtain the unbundled loop when it replaces the copper loop with fiber, either in its entirety or partially, it fails to comply with the Commission criterion for experiments.

*AT&T's Plan fails to explain how it intends to continue to comply with its obligation to provide DS1s and DS3s on an unbundled basis and fails, as required by the Technology Transitions Order, to identify the comparable IP services it will offer under similar prices, terms and conditions.*

Pursuant to the Commission rules, implementing the unbundling provisions of the Act, an incumbent LEC must provide a requesting telecommunications carrier with nondiscriminatory access to: 1) a DS1 loop on an unbundled basis to any building (a maximum of 10 unbundled loops per single building) not served by a wire center with at least 60,000 business lines and at least four fiber-based collocators;[21] and, 2) a DS3 loop on an unbundled basis to any building not served by a wire center with at least 38,000 business lines and at least four fiber-based collocators.[22] A DS1 loop is a digital local loop having a total digital signal speed of 1.544

[21] 47 CFR 51.319(a)(4). A DS1 loop is a digital local loop having a total digital signal speed of 1.544 megabytes per second. DS1 loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services. *Id.*

[22] 47 CFR 51.319(a)(5). A DS3 loop is a digital local loop having a total digital signal speed of 44.736 megabytes per second. *Id.*

megabytes per second,[23] and a DS3 loop is a digital local loop having a total digital signal speed of 44.736 megabytes per second.[24] DS1s and DS3s are offered over copper or fiber facilities and, while considered a TDM service, can be offered over IP facilities using circuit-emulation technologies.[25]

AT&T does not mention DS1s and DS3s specifically in the context of those wholesale customers that purchase them as an unbundled loop but states that its intent is "eventually not only to withdraw its legacy TDM services but also to retire the TDM electronics and other facilities used to provide those TDM services (and UNEs)."[26] In other words, AT&T's proposal appears to indicate its intention to cease offering DS1s and DS3s as unbundled elements (as well as special access or other services), but fails to identify an alternative that would provide the purchasers of these wholesale products as UNEs equivalent functionality and pricing.

As an initial matter - aside from ignoring the Commission's criterion that the applicant identify the comparable wholesale service being offered at the equivalent prices, terms and conditions - the Commission's unbundling rules do not provide the incumbent with the option of simply discontinuing DS1s and DS3s as unbundled loops (but for the cap and facilities restriction presented in the rules). The rules related to DS1s and DS3s provide no condition on the obligation based on whether the incumbent replaces copper loops with fiber loops or use TDM or

[23] 47 CFR 51.319(a)(4).

[24] 47 CFR 51.319(a)(5).

[25] *See* Letter from Karen Reidy, COMPTEL, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 13-5 *et al.*, Attachment, at 26 (filed Dec. 6, 2013).

[26] *AT&T Proposal for Wire Center Trials* at 29.

IP equipment.[27] Indeed, as a technical matter, DS1s and DS3s can be provided over copper loops and using IP technology. So there is no need for the incumbent to cease its provision of DS1s and DS3s as UNEs during (or upon completion) of the transition. AT&T, as part of this proposal, must explain how it intends to continue to comply with its obligation to provide DS1s and DS3s on an unbundled basis, consistent with Commission rules, and, as required by the *Technology Transitions Order*, identify the comparable services it will offer as a replacement under similar prices, terms and conditions.

## II. AT&T's Special Access "Catch Products" Do Not Offer A Comparable Service at Equivalent Prices, Terms, and Conditions

AT&T has identified three types of TDM special access products – DS0s, DS1s and DS3s – that it intends to withdraw, claiming a need to do so as a result of its ultimate transition to IP technology. As a threshold matter, these services can be provisioned over an IP network so

[27] *See* Second Order on Generic Proceeding, *In re: Petition to establish generic docket to consider amendments to interconnection agreements resulting from changes in law, by BellSouth Telecommunications, Inc*., Before the Florida Public Service Commission, Docket No. 041269-TP; Order No. PSC-06-0299-FOF-TP, at 35-36, Apr. 17, 2006. ["BellSouth appears to be concluding that new construction of fiber to a building is "greenfield", that the CLEC… [is] therefore not entitled to DS1 or DS3 UNEs. BellSouth's interpretation is contrary to the intent of the TRO and the TRRO. The best example supporting our belief is found in Exhibit 37, which is the FCC's brief filed with the D.C. District Court of Appeals in opposition to Allegiance Telecoms' motion for stay pending review, where in the FCC's own words it stated '[t]he text, as well as the rules themselves make it clear that DS1 and DS3 loops remain available as UNEs at TELRIC prices'…Decision BellSouth is under no obligation to offer unbundled access to "greenfield" FTTH/FTTC loops used to serve residential MDUs. In those wire centers where impairment exists, a CLEC's access to unbundled DS1 and DS3 loops was not exempted and BellSouth, upon request, shall unbundle the fiber loop to satisfy the DS1 or DS3 request."]; *See also*, 47 CFR 51.319(a)(2)(ii) ["*Broadband services.* When a requesting telecommunications carrier seeks access to a hybrid loop for the provision of broadband services, an incumbent LEC shall provide the requesting telecommunications carrier with nondiscriminatory access to the time division multiplexing features, functions, and capabilities of that hybrid loop, including DS1 or DS3 capacity (where impairment has been found to exist), on an unbundled basis to establish a complete transmission path between the incumbent LEC's central office and an end user's customer premises. This access shall include access to all features, functions, and capabilities of the hybrid loop that are not used to transmit packetized information."]

there is no need to decommission these services in order to accommodate the transition to IP.[28] Second, as explained below, the "catch products" that AT&T identifies as replacement for DS0s, DS1s, and DS3s do not meet the Commission's criteria for experiments, namely the offering of a comparable service at equivalent prices, terms and conditions. Third, because AT&T's so-called replacement products are already available, these are services that many wholesale customers have already chosen *not* to obtain on a voluntary basis as part of a natural market transition, most certainly for the same reason they do not meet the Commission's criterion – they are not equivalent in terms of pricing or functionality. This does not mean that, for example, Ethernet could not be a suitable replacement product - but the specific AT&T offering is not.

*AT&T is Proposing What the Market Has Already Found Wanting*

Importantly, the "catch products" AT&T has identified are products they currently offer wholesale customers. Consequently, there has already been a market test as to whether these services meet the needs of AT&T's wholesale customers as well as the business customers the wholesale customers serve. The fact that DSn services are still popular demonstrates that AT&T's replacement products are generally not substitutable for the existing TDM services. In pure and simple terms, AT&T's so-called "catch products" are the services that these consumers *rejected* when they choose to obtain the DSn services they receive today. Consumer sovereignty is an important feature of a market economy, for by revealing their own preferences through the services they select, carriers (including COMPTEL members) are forced to accommodate the native demand of their customers. If the AT&T "catch products" were actual substitutes, then we would see more customers choosing – indeed preferring – them over the services that AT&T proposes to eliminate. New technologies should *expand* choice and empower customers, not be

[28] *See supra* n. 25.

used as an excuse to withdraw products that consumers' desire. Clearly, there are no technical issues to be tested in the provision of these services and, more importantly, if these services were adequate replacement products for the DSn services, wholesale customers would already have switched to these products on a large scale.[29] That is not the case. This is because, as discussed below, these "catch products" are not similarly priced, functionally equivalent services.

*Price Disparity of Catch Products*

AT&T identifies AT&T's Switched Ethernet service ("ASE") as a "catch product" for its DS0 services, DS-1 Private Line services and DS-3 Lightgate Private Line services.[30] AT&T, however, does not provide a detailed description of the ASE service it is offering as part of the experiment. Thus, AT&T fails to explain how this "catch product" meets the criterion that experiments must identify comparable services at similar price, terms and conditions. It also does not provide the transparency AT&T claims it provides in its proposal. Nevertheless, for purposes of analysis COMPTEL uses the description of ASE as provided in its publicly available Interstate Access Guidebook, Part 5, Section 4 entitled "AT&T Switched Ethernet Service." This appears to be the only ASE product that AT&T offers generally to all carriers on a non-discriminatory basis.

The most glaring impact to AT&T's wholesale customers of its private line services in switching to ASE is the enormous cost increase because of the lack of availability of smaller capacity circuits. Specifically, AT&T proposes to replace DS0 (64Kbps) and DS1 (1.544Mbps)

[29] At some point in this process, COMPTEL would hope that AT&T would address the problems we identify here that limit the usefulness of AT&T's services as a wholesale input, including price. While there should be no technical issue as to AT&T's ability to *offer* a meaningful wholesale substitute, there will be questions concerning AT&T's ability to *transfer* customers through a hot-cut process that minimizes any potential disruption to the end-user customer itself.

[30] AT&T Plan at Exhibit E.

TDM circuits with its ASE service which has a minimum port speed available of 100Mbps.[31] While an increase in capacity is not a negative in and of itself, there is a corresponding increase in the cost. The result of this capacity disparity is that the cost of simply replacing raw transmission capacity for DS0 and DS1 services is unduly high because of the minimum capacity requirement of AT&T's ASE service. In the case of a 24-month term for example, ***the cost increase for a DS1 replacement is approximately 1000%.***[32]

DS3 special access service operates at 44.736 Mbps. Again, with the minimum port capacity of ASE fixed at 100Mbps, the port is twice the size of that necessary to replace a DS3 facility. With the addition of the EVC at a CIR of 50Mbps, the cost of an ***ASE replacement is almost twice the cost of the existing DS3 special access service***.[33] The same is true of the Wave Length Channel Service (WCS) as a catch product for DS3 TDM Private Line Special Access Services. While the capacity is significantly greater, the cost of the raw replacement capacity is almost twice the cost of the existing DS3 private line special access facility.[34] To this cost of raw capacity must be added the additional cost of equipment necessary to provide a DS3 interface to the customer for compatible interconnection to the customer's equipment.

---

[31] *See id; See also* Guidebook, 2nd Revised Page 1, section 4.1(H)(1)(a) and 6th Revised Page 4, section 4.1(H)(2)(a). Further, the minimum speed for the "Committed Information Rate" (CIR) of the connected "Ethernet Virtual Circuit" (EVC) - which provides the ability to transport traffic between two or more locations - is 2Mbps. *See* Guidebook, 2nd Revised Page 2, section 4.1(H)(1)(b) and 6th Revised Page 4, section 4.1(H)(2)(b). AT&T ASE section of Guidebook available at: http://cpr.att.com/pdf/is/0005-0004.pdf .

[32] *See attached* Exhibit, Table 1.

[33] *See id.*, Table 2.

[34] *See id.*, Table 3.

This issue of the substantial increase in costs associated with the minimum bandwidth requirement of the ASE offering is especially important because many business locations do not require, ***and should not have to bear the costs associated with***, the high-bandwidth ports. This particularly impacts smaller commercial customers and the smaller locations of larger, multi-location commercial customers. These customers often require modest broadband facilities; enough to serve two to three voice lines and provide occasional access to "private virtual network" connections to a main headquarters, along with occasional Internet access.

Consider the example of small commercial customer, Farm Supply Company, a 60 year old cooperative owned by 2700 farm families and served by COMPTEL member Blue Rooster Telecommunications of San Luis Obispo, California.[35] Farm Supply has 5 locations in California which are each served by DS1s. Four locations are served by one DS1 each and one location is served by two DS1s. The current charges to Farm Supply from Blue Rooster for these DS1s is between $200/mo and $240/mo each, depending on the distance of the access facility from the customer location to the Blue Rooster aggregation point. For the DS1s currently in service, Farm Supply spends a total of approximately $1,320/month. If Blue Rooster were to use AT&T's ASE offering to serve Farm Supply it would be forced to purchase 100Mbps ports at each location. This would drive the cost of service far beyond Farm Supply's ability to afford, since the comparable total charges to serve Farm Supply using AT&T's ASE service as a replacement for the DS1s would be $6,340/month, an increase of more than 480%. Farm Supply uses the DS1s to support voice service, but it also has a requirement for low-latency interconnection between all of its locations in order to support its private network applications.

[35] Although not located within one of the two wire centers selected by AT&T for its proposed experiment, COMPTEL considers this example typical and, as such, a useful illustration of the deficiencies in AT&T's proposal.

Again, Farm Supply's capacity requirements are modest but its connectivity requirements are critical for running its business.

As mentioned above, the "ASE alternative" also impacts the small business *locations* of larger, multi-location customers, such as gas stations, quick-care health facilities, retail stores or other low-volume user locations with modest capacity requirements that shouldn't be burdened with the costs of unnecessary capacity because of AT&T's experiment (and ultimate transition to IP). For example, the typical convenience store that is part of a national or regional chain may have two business lines, 3 point-of-sale terminals and a modest need for Internet access. A competitor could provide all of those services using a DS1 access facility that it obtains from the ILEC as special access for approximately $126/month (or less if obtained as a UNE). The entire retail charges to that convenience store for *all* of its services may amount to less than $300/month. If the same customer is served using AT&T's ASE service, just the wholesale cost for the access facility would be approximately $1,200/month – a dramatic and unnecessary increase in cost. Nevertheless, the need for *connectivity* is critical. Consequently, it is vital that in order to meet the needs of such customers, *affordable* options be available at the *capacity* requirements they desire. This is exactly the option provided by competitive carriers using DS1 facilities.[36]

In addition, frequently, smaller commercial customers will use the smaller capacities to initially obtain broadband, and then add capacity as they grow. In response, many competitive carriers use a technology that allows for "bonding" of DS1s in order to provide the granular gradations in capacity those customers require. For example, a customer may order a single DS1

[36] This is not to say that the only access option needed in the transitional marketplace is a DS1 (or DS3 connection). Rather our point is (and has always been) that a broad array of last-mile access options must be available to fully serve the diverse requirements of the business market.

broadband facility to support three voice lines and a modest data requirement. Later, the customer may double or even quadruple in size. In such cases, the competitive provider is able to order additional DS1s to increase that customer's capacity in 1.544 Mbps increments. If the customer continues to grow, these bonded configurations can be duplicated until the customer can justify the cost of a DS3 facility. However, DS3 facilities are also slated for expiration under AT&T's plan.

*Functionality Disparities of the Catch Products*

Ethernet is a robust technology with vast capabilities. While it is true that only a subset of Ethernet capabilities would theoretically be required to create functional replacements for TDM services, there exist certain TDM functions that cannot be supported without relying on some of Ethernet's more advanced capabilities. In addition to the lack of pricing information of its wholesale replacement products, AT&T fails to provide details on the functionality they will offer through these services even though they are critical to an evaluation of ASE as an acceptable catch product for TDM services. Public information is relied upon here, however, to perform a limited comparison of AT&T's ASE service to what a wholesale customer would require. As described in AT&T's guidebook, ASE imposes arbitrary limitations on the underlying Ethernet technology that limit the effectiveness of AT&T's products to serve as a prospective TDM replacement technology. The examples below are not exhaustive by any means.

For one, competitive carriers often use a DS3 facility to connect (up to) 28 single location customers. This multiplexing function can be provided through the competitive carrier's own collocated equipment or by purchasing the function from the ILEC under special access. This ability is not feasible, however, using AT&T's ASE product as described in it Interstate Access

Guidebook. The wholesale purchaser would not only incur the expense of a needlessly over-sized replacement facility (since the ASE port, at 100Mbps, is more than twice the capacity required for a DS3 substitute), it would also be subject to an AT&T-imposed limit of being able to serve only eight customers for each 100Mbps port. This is because AT&T limits the number (to eight) of EVCs (Ethernet Virtual Circuits) per 100Mbps port a wholesale customer can configure using its ASE product.[37] And, because an EVC is used to provide an isolated security and performance environment, each customer must be assigned its own EVC in order to keep that customer's traffic isolated from the traffic of other customers. Because of this arbitrary and artificially imposed limit of eight EVCs per port, a competitive provider can only support eight customers on that 100Mbps ASE port even though the capacity of that port is more than double the capacity required to supplant the DS3 service which had been supporting 28 DS1s, possibly each from a different customer. This would drive up the cost of access by *both* increasing the minimum capacity per port, while significantly reducing the number of customers each port can support.

In addition, as practical matter, this also results in an arbitrary limitation on the number of telephones that could be supported for both single and multi-location customers, to 250 (optionally 500) telephones using ASE. This is due to the fact that ASE imposes a limit of 250 devices (optionally, 500) on any single EVC (Ethernet Virtual Circuit)[38] and, as discussed above, due to the 8-EVC per port limitation, as a practical matter the wholesale customer generally only

---

[37] *See* Guidebook, 2nd Revised Page 3, section 4.1(H)(1)(c) and 3rd Revised Page 5.1, section 4.1(H)(2)(e).

[38] *See* Guidebook, 6th Revised Page 4, section 4.1(H)(1)(c) and 3rd Revised Page 5.1, section 4.1(H)(2)(e) and 1st Revised Page 5.2, section 4.1(H)(3)(b). An EVC provides a logical connection to enable the flow of Ethernet traffic for point-to-point and multipoint Customer configurations

provisions one EVC per customer. Thus, if a customer were to have a headquarters location with, for example, 300 employees, and twenty-five satellite locations with 10 employees each, a simple Ethernet bridged configuration of the IP Phones for those employees could not be supported on one EVC (even though the minimum bandwidth that must be ordered would far exceed the bandwidth required). In other words, the customer would pay for far more capacity than is needed and, conceivably, would still not be able to connect the number of telephones required to serve its needs. Whereas, the number of phones supported by DSn services is based on customer's actual call volume. Traffic engineering calculations for DS1 facilities are indifferent to the *number* of telephones that generate the specified call volume. In a multi-location environment, each DS1 facility provides a certain amount of call volume capacity, and the number of DS1s ordered to each location is determined by the call volume at each location (not by the number of telephones).

Importantly, these are not limitations of Ethernet technology. Even the most basic form of Ethernet VLANs[39] provides for support of up to 4092 EVCs per port (excluding reserved IDs). Indeed as the IEEE standard shows, using double-tagging techniques, more than 16 million EVCs could be supported. Finally, using Ethernet Provider Backbone Bridging techniques[40], even more EVCs could be supported by the technology in a fully-isolated manner. Again, the limitations AT&T has placed on ASE service, which constrain its ability to serve as a replacement for TDM private line service, are not inherent limitations of the technology but, rather, imposed by AT&T.

---

[39] *See* IEEE Std 802.1Q™ -2011 "Media Access Control (MAC) Bridges and Virtual Bridge Local Area Networks", clause 9.6, available at: http://standards.ieee.org/findstds/standard/802.1Q-2011.html

[40] *Id* at clause 16.

Furthermore, TDM networks, and the endpoint customer equipment to which they connect, require clocking and synchronization in order to operate efficiently and without error. TDM networks maintain Stratum 1 & 2 clock sources for this purpose, and TDM facilities carry the clocked bitstreams throughout the network, maintaining this synchronization. Ethernet is not natively supportive of synchronization (although, as we explain below, the capability can be integrated into the Ethernet service). The lack of synchronized timings can pose a major problem when ASE is used as a replacement service for TDM on one end of a private line, while a true TDM circuit serves the other end of that same private line service. This could happen, for example, with DS1 tie-trunks between the PBXs of two locations of a commercial customer, each resident in a different city.

Standards such as the ITU-T's "Synchronous Ethernet" standard and IEEE's 1588-2008 Precision Time Protocol were expressly designed for the purpose of supporting networks and equipment that require precise timing sources unachievable using a standard Network Timing Protocol or GPS. However, based on available information, AT&T does not make the capability available in the ASE service that it offers. In summary, as a replacement service for TDM, ASE is unacceptable as a wholesale offering because its narrow construction will not support a number of services that commercial customers can today obtain from competitors.

AT&T's alternatives to ASE fare no better (although for different reasons). AT&T's proposal to use AT&T Network Based IP VPN Remote Access (ANIRA) as a replacement product for TDM Private Line Special Access Service is also unacceptable because it uses the Internet as a transport vehicle. The Internet cannot guarantee the performance necessary to support the rigid timing requirements of isochronous communications, such as that provided over TDM circuits. Further, while security considerations are partially alleviated through the use of

IPSec and other security protocols, the fact remains that denial-of-service attacks (for example) could easily be used to maliciously compromise service availability. For these reasons, ANIRA is an unacceptable catch product for TDM private line special access service.

*AT&T Fails to Identify Operational Impacts of Wholesale Replacement Products on End-User Customers*

The *Technology Transitions Order* states that service experiments should identify operational issues posed by technology transitions and their impacts on customers, including any operational challenges arising between applicants and their wholesale customers and competitors. One such issue posed by AT&T's replacement product is the end-user customer interface. The interface to ASE is an Ethernet interface, while the existing DSn service ASE presumes to replace connects through a TDM interface. While it is true that TDM service could be transported over ASE, the interface to existing customer equipment cannot directly connect to the Ethernet interface of ASE without a service-adaption function. This function begins with the interface. For ASE to be considered a replacement for TDM services, it must continue to provide the same interface to endpoint customer equipment (regardless of the underlying transport technology) as the replaced service. Otherwise, the endpoint customer (or the wholesale customer) will be forced to immediately purchase adaption equipment or, in extreme cases, brand new customer equipment in order to use the "catch product" replacing the existing service.

## III. AT&T's Plan Falls Short in Other Respects – Specifically Replacements for Services and Devices that the Commission Deemed Important

In its *Technology Transitions Order*, the Commission requested experiments and data collection that would allow it and the public "to evaluate how consumers are affected by the historic technology transitions that are transforming our nation's voice communications services

– from a network based on time-division multiplexed (TDM) circuit-switched voice services running on copper loops to an all-Internet Protocol (IP) network using copper, co-axial cable, wireless, and fiber as the physical infrastructure."[41] The Commission emphasized that "the goal of all of these experiments and initiatives is to learn about the impact of the technology transitions on the customers – and communities – that rely on communications network."[42] One of the key purposes of the experiments is to determine how consumers will continue to use the devices and services they have come to depend on and which, in some cases, are critical.

AT&T's proposal, which is supposed to be a comprehensive wire center proposal, fails to address the continued usability of key devices and services post-transition, including devices and services that were specifically identified by the Commission in its *Technology Transitions Order*. Rather, AT&T either states, in essence, that it is still working on it, or AT&T admits that the post transition service it identifies won't provide these service/functions. For example, (and this is not an exhaustive list):

Commission Criterion: Preservation of 911/E911 and Next Generation 911 capabilities.[43]

> AT&T Response: "Currently, Wireless Home Phone and Wireless Home Phone and Internet… do not provide E-911 with street address."[44] But AT&T knows that these applications are vitally important to its customers.[45] (*i.e.*, AT&T is still working on this.)

[41] *Technology Transitions Order* at ¶1.

[42] *Id.* at ¶8.

[43] *Technology Transitions Order* at ¶ 39.

[44] AT&T Plan at 15.

[45] *Id.*

Commission Criterion: Testing the use of burglar alarms, medical monitoring devices, credit card readers.[46]

AT&T Response: "Nor does Wireless Home Phone and Wireless Home Phone and Internet currently support alarm monitoring, medical alert and credit card validation applications."[47] But AT&T knows that these applications are vitally important to its customers.[48] (*i.e.*, AT&T is still working on this.)

Commission Criterion: Ensuring that people with disabilities continue to have access to evolving technologies.[49]

AT&T Response: "TTY compatibility and accessibility for Wireless Home Phone and Internet services is being carefully assessed."[50] But no explanation as to if and how persons with disability will obtain access. (Presumably AT&T is still working on this.)

Commission Criterion: Applicant's Plan must ensure that the same type of wholesale customers can continue to use its network.[51]

AT&T Response: Switch Access Feature Group B "catch product" "**none"**.[52] (*i.e.*, Customer out of luck.)

Commission Criterion: The Commission will look, *at a minimum*, to understand how the proposed network changes will affect making dial-around calls, reaching an operator by dialing "0", the ability to accept collect calls, and ankle bracelets.[53]

AT&T Response: U-Verse Voice and/or Wireless Home/Business Phone do not support these services.[54] (*i.e.*, Customers out of luck).

---

[46] *Technology Transitions Order*, App. B, ¶5.

[47] AT&T Plan at 15.

[48] *Id.*

[49] *Technology Transitions Order*, App. B, ¶28.

[50] AT&T Plan at 15.

[51] *Technology Transitions Order*, App. B, ¶35.

[52] AT&T Plan, Exhibit E.

[53] *Technology Transition Order*, App. B, ¶5.

[54] AT&T Plan at 14.

The significant gaps in AT&T's proposal is evidence that they are not ready and consumers would be harmed by the elimination of existing services.

**Conclusion**

AT&T's proposal for wire center trials lacks significant details necessary for evaluation and it is obvious AT&T is not prepared to conduct a service based experiment in King Point, Florida, Carbon Hill, Alabama or elsewhere. As such, the Commission should not approve or in any manner endorse AT&T's plan.

More importantly, AT&T's plan demonstrates that in order to promote the technology transitions, while ensuring the core statutory values, the Commission must implement the wholesale recommendations in the National Broadband Plan. Namely, the Commission should (1) undertake a comprehensive review of its wholesale regulations and "develop a coherent and effective framework . . . to ensure widespread availability of inputs for broadband services provided to small businesses, mobile providers and enterprise customers";[55] (2) ensure that rates, terms, and conditions for both TDM-based and packet-based special access services are just and reasonable;[56] (3) clarify statutory rights and obligations regarding interconnection, including IP interconnection;[57] and (4) "ensure appropriate balance in [the Commission's] copper retirement policies."[58]

[55] *National Broadband Plan* at 48 (Recommendation 4.7).

[56] *Id.* (Recommendation 4.8).

[57] *Id.* at 49 (Recommendation 4.10).

[58] *Id.* at 48 (Recommendation 4.9).

Respectfully submitted,

/s/

_____

Karen Reidy
COMPTEL
1200 G Street NW
Suite 350
Washington, DC 20005
(202) 296-6650

March 31, 2014

# Exhibit

**Table 1**

| 24-Month Service | Cost/Mo |
|---|---|
| ASE Basic Port Charge (100Mbps)* | $ 750.00 |
| Basic Real-time CIR @ 2Mbps* | $ 510.00 |
| **Total ASE Cost/Mo @2Mbps*** | **$ 1,260.00** |
| | |
| **Local Channel - Per DS1 (Zones 2 & 3)**** | **$ 126.00** |
| | |
| **Cost Differential** | **1000%** |

*** See AT&T Guidebook, Part 5, Section 4.6 "Rates and Charges"**
**** See BellSouth Tariff FCC #1, Original Page 7-246**

**Table 2**

| 24-Month Service | Cost/Mo |
|---|---|
| ASE Basic Port Charge (100Mbps)* | $ 750.00 |
| Basic Real-time CIR @ 50Mbps* | $ 1,460.00 |
| **Total ASE Cost/Mo @2Mbps*** | **$ 2,210.00** |
| | |
| **Local Channel - Per DS3 (Zones 2 & 3)**** | **$ 1,232.50** |
| | |
| **Cost Differential** | **179%** |

*** See AT&T Guidebook, Part 5, Section 4.6 "Rates and Charges"**
**** See BellSouth Tariff FCC #1, Original Pages 7-263 & 7-264**

**Table 3**

| 24-Month Service | Cost/Mo |
|---|---|
| Wave Length Local Channel (1Gbps) | $ 2,415.00 |
| **Total WCS Cost/Mo @1Gbps*** | **$ 2,415.00** |
| | |
| **Local Channel - Per DS3 (Zones 2 & 3)**** | **$ 1,232.50** |
| | |
| **Cost Differential** | **196%** |

*** See AT&T Guidebook, Part 11, Section 28.3, Original Page 13**
**** See BellSouth Tariff FCC #1, Original Pages 7-263 & 7-264**

*AT&T Guidebook, Part 5 section 4 available at: http://cpr.att.com/pdf/is/0005-0004.pdf ; Part 11 section 28 available at: http://cpr.att.com/pdf/is/0011-0028.pdf

** BellSouth Tariff FCC #1 available at: http://cpr.att.com/pdf/fcc/1007.pdf

**Before The**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | WC Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | WC Docket No. 12-353 |
| | ) | |
| | ) | |

## COMMENTS OF WINDSTREAM CORPORATION

Windstream Corporation (hereinafter "Windstream") submits the following comments on AT&T's Proposal for Wire Center Trials (the "AT&T Proposal") suggesting experiments involving the transition of two wire centers, Carbon Hill, Alabama, and Kings Point, Florida, to "all-IP" services.[1] Windstream offers a variety of voice and data services to approximately 300 business customer locations in the Kings Point wire center,[2] in part through the purchase of UNEs, special access, and other wholesale products and services from AT&T. Thus, Windstream is concerned about the impact the experiments—and, in the future, the transition to entirely IP networks—will have on these customers, the vast majority of which are small businesses that are served by TDM-based products today.

---

1 *See* Letter from Christopher M. Heimann, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 13-5, 12-353, at Attachs. (filed Feb. 27, 2014) (AT&T Proposal).

2 All of the customer information herein is derived from Windstream's review of GeoResults data from 1st Quarter 2014 including all 19.5 million non-home based business locations in the nation. On March 27, 2014, Windstream ran a query for all customers of Windstream Communications in the Carbon Hill and Kings Point wire centers. Excluding obvious duplicates in the GeoResults data resulting from GeoResults' compilation of data from three underlying data providers, the GeoResults data showed 310 business customer locations served by Windstream, all in the Kings Point wire center.

According to GeoResults data from 1st Quarter 2014, more than half of the commercial premise-based business customer locations served by Windstream in the Kings Point wire center have 5 or fewer employees; more than 90 percent have fewer than 50 employees. About two-thirds have annual sales of less than $1 million, and half of those have annual sales of less than $500,000.[3] More than 80 percent of the businesses represented have only a single or very few commercial premise-based locations.[4] More than one-third of the approximately 300 commercial premise-based locations served by Windstream are doctors' offices and other small health care facilities; others include local restaurants, independent retailers, beauty shops, florists and produce markets. Most of these members of the Kings Point business community require only limited amounts of bandwidth that can be delivered over a DS0 or DS1.

Windstream urges the Commission to require AT&T meet *all* of the Commission's requirements with respect to wholesale services used to enable communications connectivity for these customers and many others like them, as set forth in Paragraph 59 of the *Technology Transition Trials Order*.[5] Of particular concern are the following three requirements:

---

[3] Information about number of employees and sales figures are provided to GeoResults by its underlying business database suppliers in most cases. In a few instances, where the "number of employees" data field is missing a value, GeoResults will use its proprietary models to provide an employee estimate for this record.

[4] Fewer than 20 percent of the locations served by Windstream are identified as by GeoResults as being part of a "family" of business locations, which are usually medium-sized or large, multi-site businesses.

[5] Technology Transitions, *et al.*, GN Docket No. 13-5, *et al.*, *Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative*, FCC 14-5 (rel. Jan. 31, 2014) ("*Technology Transition Trials Order*").

- Comparable services must be available "at equivalent prices, terms and conditions."[6]
- Replacement wholesale inputs must "offer substantially similar wholesale access to the applicant's network."[7]
- The applicant's plan must "ensure that neither wholesale nor retail customers are penalized as a result of the experiment (*e.g.*, purchases of alternative services count towards discounts for purchases outside of the experiment areas, early termination fees are waived if early termination is caused by the experiment)."[8]

As drafted, AT&T's Proposal does not meet these requirements, and it must be required to do so. The AT&T Proposal is far more fully defined and articulated with respect to the transition of AT&T's *retail* products and customers than its *wholesale* products and customers. Thus, it is not clear that AT&T's trial will "identify operational issues posed by technology transitions and their impact on customers, including any operational challenges arising between applicants and their wholesale customers and competitors."[9] Indeed, at the time of filing AT&T was not even able to articulate the "specific extent of wholesale activity" in the wire centers.[10] In addition, the AT&T Proposal notably does not make clear what replacement services—and at what cost, terms, and conditions—will be available to wholesale customers during or after its trial. Furthermore, despite AT&T's recognition that "it is important to be transparent about how [wholesale] issues

---

6 *Technology Transition Trials Order* at ¶ 59

7 *Id.*

8 *Id.* at Appendix B ¶ 35.

9 *Id.* at ¶ 60.

10 AT&T Wire Center Trial Operating Plan at 45, fn.98.

fit into the overall IP transition,"[11] much of the little detail AT&T has provided thus far has been pursuant to Protective Order and thus is inaccessible by its wholesale customers. Thus, while Windstream is interested in opportunities AT&T may present to convert Windstream's business customers to all-IP services, Windstream is unable to provide meaningful comment on the proposed wholesale transition until AT&T provides and makes accessible to the public further details.

AT&T in its Proposal correctly notes that "any robust and meaningful examination of the processes necessary to effect an orderly transition from legacy TDM-based services to an all-IP ecosystem necessarily must include an assessment of the impact of that transition on wholesale customers."[12] The question of the appropriate treatment of wholesale customers, consistent with Congress' "core statutory value" of preserving and promoting competition,[13] is an essential consideration in the IP transition. The transition of wholesale services raises varied and complex policy issues, and trials in the two particular wire centers identified by AT&T—wire centers that appear to be relatively uncomplicated based on the types of customers served—cannot sufficiently illustrate, let alone resolve, these issues.[14] For this reason, Windstream agrees with the Commission's stated approach not to resolve legal and policy questions in the context of any trials,[15] and Windstream urges the Commission to analyze all trial results in the context of the narrow focus of each experiment.

---

11 AT&T Proposal at 10.

12 AT&T Proposal at 27.

13 *See Technology Transition Trials Order* at ¶ 1.

14 For example, there are wholesale transition challenges specific to urban areas, and areas containing government customers, that likely will not arise in the wire centers that are the subject of the AT&T Proposal.

15 *See id.* at ¶ 8.

## I. THE AT&T PROPOSAL FAILS TO ASSURE THAT COMPARABLE SERVICES WILL BE AVAILABLE AT EQUIVALENT PRICES, TERMS AND CONDITIONS.

The Commission made clear in the *Technology Transition Trials Order* that comparable services must be "available during the experiment at equivalent prices, terms and conditions."[16] AT&T nowhere commits that this will be the case. In fact, AT&T merely states that its replacement IP-based services will be available on "commercial terms." A simple fix would be to permit AT&T to institute replacement services, but to require that they be offered at rates not higher and on terms no worse than what the specific wholesale customer is already able to obtain today— including all applicable discounts. The *Technology Transition Trials Order* made clear that AT&T cannot use the trial to force a provider to pay more than it is already paying.[17]

In particular, the benchmark for a wholesale customer in evaluating what constitutes "equivalent prices, terms and conditions" has to be the rates the customer was able to pay under tariff and/or agreement for the TDM services. These rates cannot simply be left to the unconstrained marketplace. Indeed, were the Commission to fail to require that rates be set no higher than the equivalent level for DS0, DS1 and DS3 TDM services, not only would it violate the *Technology Transition Trial Order's* requirement that prices or costs of access "do not increase as a result of the experiment," but the Commission also would need to suspend its forbearance from Title II with respect to at least these packet-switched services. The Title II forbearance was premised directly on the availability of TDM DS1 and DS3 special access alternatives.[18]

---

16 *Technology Transition Trials Order* at ¶ 59.

17 *See, e.g., id.* at ¶ 59 and Appendix B at ¶ 35.

18 Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and *Computer Inquiry* Rules with Respect to Its Broadband Services, *Memorandum Opinion and Order*, 22 FCC Rcd. 18,705,18, 717 ¶ 20 (2007) ("We note that the relief we grant AT&T

The AT&T Proposal as written, however, does not provide sufficient assurances that comparable services will be available for equivalent pricing, terms, and conditions. In Exhibit E to the AT&T Proposal, AT&T states that its ASE Product will be the alternative to its Special Access DS0 through DS3 TDM tariffed services, but does not provide any details regarding the pricing, service terms, and conditions (important for both initial delivery and ongoing service quality), or the network that will be used to provide the ASE product in the trial wire centers. This information is needed for all wholesale products AT&T intends to transition from TDM to IP. Data on AT&T's practices to date, outside of this trial, suggest there may be cause for concern regarding these elements: A comparison of the AT&T tariffed rack rates for its TDM products to the rack rates for the proposed ASE products indicates a significant price increase for wholesale customers,[19] and installation intervals for the ASE product may be significantly longer than the corresponding intervals for TDM products.

For an example of the unanswered questions posed by the AT&T Proposal, consider the case of a competitive provider choosing to participate in the trial and ordering a 2 Mbps ASE facility for last-mile connectivity rather than a DS1 TDM service from AT&T's special access tariff. Will the pricing and service terms and conditions be equivalent? Will the current network to the customer location support the ASE service, or will new facilities be required? If new facilities are required, is the competitive provider responsible for paying the special construction costs and how will any such costs be determined?

---

excludes TDM-based, DS1 and DS3 special access services, and that such special access services remain rate regulated, regardless of the specific geographic market.")

[19] *See* AT&T Tariffs, Switched Ethernet (ASE), Part 5, Section 4, and Special Access, Interstate Access Tariff, Section 11, Part 7, *located at* http://cpr.att.com.

Finally, AT&T does not make clear the extent to which a wholesale customer will be able to augment existing TDM services rather than take AT&T's alternative IP offerings. If a wholesale customer cannot initiate new TDM services or inputs or augment existing ones, then migration to the alternative offerings is not truly voluntary. If implemented during the trial phase, such an approach would be inconsistent with our interpretation of the *Technology Transition Trials Order* and the AT&T Proposal, which appear to acknowledge that wholesale participation in the trial at this time is entirely voluntary and that AT&T must file Section 214 Discontinuance Applications, and receive FCC approval, to grandfather or discontinue any wholesale inputs and services.[20] The Commission accordingly should remove any ambiguity and ensure that AT&T permits all wholesale customers to initiate new TDM services or inputs or augment grandfathered TDM inputs and services during the trial.

## II. THE AT&T PROPOSAL DOES NOT ASSURE THAT WHOLESALE INPUTS WILL OFFER SUBSTANTIALLY SIMILAR WHOLESALE ACCESS TO AT&T'S NETWORK

The AT&T Proposal also lacks necessary specifics regarding the transition of wholesale inputs in the two wire centers at issue. AT&T provides almost no detail about what equivalent inputs would be provided to ensure network access as an alternative to UNEs. The Proposal states that AT&T will only be making "UNEs available through the current stage of the trial" and "wholesale customers will have the opportunity to obtain bare copper loops."[21] However, AT&T does not define "bare copper" and does not specifically explain what is meant by "opportunity to obtain bare copper loops" or how AT&T intends to meet its wholesale

---

[20] See *Technology Transition Trials Order* at ¶ 59 and fn.91; Wire Center Trial Operating Plan at 12-13 and fn.23.

[21] AT&T Proposal at 29.

obligations under Section 251(c) of the Act after the current stage of the trial. In particular, among the questions raised on this front are the following:

- Under what rates, terms, and conditions does AT&T intend to offer "bare copper" loops to wholesale customers after the "current stage of the trial"?
- Is AT&T's proposed access to "bare copper" loops just to the sub-loop portion (distribution) of their copper network, whereby wholesale customers would be required to obtain rights of way and install equipment at AT&T's service pedestals to provide connectivity to end user customers?
- Does AT&T intend to lease all or a portion of its copper facilities (i.e., feeder portion) to wholesale customers after it has concluded the trial? If so, under what rates, terms, and conditions and how will access to the copper network be provided?

Moreover, in addition to purchasing UNE loops in the form of an end-to-end unbroken copper loop, wholesale customers also purchase UNEs that combine copper and fiber transmission. It is unclear what replacement services will be offered for these UNE arrangements, and whether they will provide substantially similar wholesale access.

Windstream looks forward to receiving further detail from AT&T regarding its intentions for a wholesale transition trial so that it can provide further comment to the Commission. These details must be fleshed out to meet the Commission's trial requirements.

## III. THE AT&T PROPOSAL DOES NOT MAKE CLEAR THAT WHOLESALE CUSTOMERS WILL NOT BE PENALIZED AS A RESULT OF CONTRACTUAL MINIMUM "SPEND" COMMITMENTS BY CIRCUIT TYPE.

AT&T nowhere explains how the experiment would interact with contractual minimum "spend" commitments. As the Commission is aware, these minimum "spend" (*i.e.*, minimum

annual commitment) clauses can significantly restrict the ability of a wholesale customer to shift purchases from AT&T to other suppliers, where available. Here, because these "spend" commitments frequently specify a minimum annual commitment by circuit type, a purchase of Ethernet in lieu of a DS1 will not necessarily count towards fulfillment of the minimum annual commitment. These commitments have the effect of locking the wholesale customer into the TDM product, or facing the prospect of essentially paying twice (once for the Ethernet service and once to make up the deficit on the minimum annual commitment for a DS1).

To ensure there is no such harm, the Commission should mandate that AT&T provide a reduction by one of committed DS1 and DS3 circuit counts for every converted or newly purchased IP equivalent circuit. In this way, a wholesale purchaser would not be penalized for "spend" shortfalls resulting from any switch to Ethernet services.

## IV. THE COMMISSION SHOULD NOT DELAY ITS ONGOING REVIEW OF THE LEGAL AND POLICY ISSUES THAT MUST BE ADDRESSED TO ENSURE ROBUST COMPETITION IN THE BUSINESS SERVICES MARKET.

As noted above, Windstream agrees with the Commission's stated approach not to resolve legal and policy questions in the context of any trials,[22] and it urges the Commission to continue to push forward with its regulatory review of the legal and policy issues that must be addressed to ensure that business consumers continue to have competitive options during and after the technology transitions. In particular, the Commission should continue to work closely with the Office of Management and Budget to expedite the approval of the comprehensive data collection in the special access reform proceeding.

The Commission acknowledged in the National Broadband Plan that the "current regulatory approach is a hodgepodge of wholesale access rights and pricing mechanisms," in

---

22 *See Technology Transition Trials Order* at ¶ 8.

which "similar network functionalities are regulated differently, based on the technology used."[23] As a result, "the lack of a consistent analytical framework hinders the FCC's ability to promote competition,"[24] and the Commission made the following recommendations:

- The FCC should comprehensively review its wholesale competition regulations to develop a coherent and effective framework and take expedited action based on that framework to ensure widespread availability of inputs for broadband services provided to small businesses, mobile providers and enterprise customers.
- The FCC should ensure that special access rates, terms, and conditions are just and reasonable.
- The FCC should ensure appropriate balance in its copper retirement policies.[25]

Windstream urges the Commission act now to follow through on these recommendations. The AT&T Proposal or any other technical trials need not and should not delay efforts to create a consistent, fact-based regulatory framework to ensure that business and government consumers will benefit from access to competitive services through consistent and reasonably priced last-mile access.

## CONCLUSION

Windstream urges the Commission to require AT&T meet *all* of the Commission's requirements with respect to wholesale services, as set forth in Paragraph 59 of the *Technology Transitions Trials Order.* Of particular concern are the requirements that comparable services must be available at equivalent prices terms and conditions; that replacement wholesale inputs

---

23 Federal Communications Commission, Connecting America: The National Broadband Plan at 47 (rel. March 16, 2010) ("National Broadband Plan").

24 *Id.* at 48.

25 *Id.*

must offer substantially similar wholesale access to AT&T's network; and that the trial plan must ensure that customers are not penalized as a result of the experiment. As drafted, AT&T's Proposal does not meet these requirements, and it must be required to do so.

Respectfully submitted,

/s/ Malena F. Barzilai

Malena F. Barzilai
Eric N. Einhorn
Windstream Corporation
1101 17th St., N.W., Suite 802
Washington, DC 20036
(202) 223-7664 (phone)
(330) 487-2740 (fax)

*Its Attorneys*

March 31, 2014

KELLEY DRYE & WARREN LLP
A LIMITED LIABILITY PARTNERSHIP

WASHINGTON HARBOUR, SUITE 400
3050 K STREET, NW
WASHINGTON, D.C. 20007-5108

(202) 342-8400

FACSIMILE
(202) 342-8451
www.kelleydrye.com

NEW YORK, NY
TYSONS CORNER, VA
CHICAGO, IL
STAMFORD, CT
PARSIPPANY, NJ

BRUSSELS, BELGIUM

AFFILIATE OFFICES
JAKARTA, INDONESIA
MUMBAI, INDIA

DIRECT LINE: (202) 342-8540
EMAIL: cyorkgitis@kelleydrye.com

**REDACTED — FOR PUBLIC INSPECTION**

March 31, 2014

**VIA ECFS**

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Comments of XO Communications, LLC on AT&T Proposal for Wire Center Trials – GN Docket Nos. 13-5 and 12-353

Dear Ms. Dortch:

XO Communications, Inc., ("XO") through its counsel and in accordance with a protective order,[1] hereby submits a redacted version of its comments on AT&T's Proposal for Wire Center Trials marked "Redacted – For Public Inspection."

Pursuant to the Protective Order, XO submitted under separate cover one confidential copy to the Secretary's Office and two confidential copies to Jonathan Reel, Competition Policy Division, Wireline Competition Bureau, these stamped "Confidential Information Subject to Protective Order in GN Docket Nos. 13-5 & 12-353, Before the Federal Communications Commission."

[1] *In the Matter of Technology Transitions, AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition*, GN Docket Nos. 13-5, 12-353, Protective Order, DA 14-272 (Feb. 27, 2014) ("Protective Order").

**REDACTED — FOR PUBLIC INSPECTION**



Please contact the undersigned should you have any questions regarding this filing.

Respectfully submitted,

Edward A. Yorkgitis, Jr. /dns

Edward A. Yorkgitis, Jr.
Kelley Drye & Warren LLP
3050 K Street, NW
Suite 400
Washington, DC 20007
Tel. (202) 342-8540
Fax. (202) 342-8451

*Counsel for XO Communications, LLC*

Enclosure

**REDACTED – FOR PUBLIC INSPECTION**

**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, DC 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| | ) | |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

# COMMENTS OF XO COMMUNICATIONS, LLC ON AT&T PROPOSAL FOR WIRE CENTER TRIALS


Lisa R. Youngers
Tiki Gaugler
XO Communications, LLC
13865 Sunrise Valley Drive
Herndon, VA 20171
Telephone: (703) 547-2258

Thomas W. Cohen
Edward A. Yorkgitis, Jr.
Kelley Drye & Warren LLP
3050 K Street, NW
Suite 400
Washington, D.C. 20007
Telephone: (202) 342-8400
Facsimile: (202) 342-8451


March 31, 2014

## TABLE OF CONTENTS

**REDACTED – FOR PUBLIC INSPECTION**

**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, DC 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Technology Transitions | ) | GN Docket No. 13-5 |
| AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition | ) | GN Docket No. 12-353 |

# COMMENTS OF XO COMMUNICATIONS, LLC ON AT&T PROPOSAL FOR WIRE CENTER TRIALS

XO Communications, LLC ("XO") hereby submits its comments on the February 27, 2014, proposal of AT&T[1] filed in the above-referenced dockets for technology transition trials in two wire centers in Carbon Hill, Alabama, and in West Delray Beach (Kings Point), Florida.

## I. INTRODUCTION AND SUMMARY

As explained herein, AT&T's proposed trials submitted in response to the Federal Communications Commission's ("FCC's") invitation in its *Transition Trials Order*[2] are critically flawed and must be modified before and if they go forward. For a variety of reasons, the two wire centers were poorly chosen as a basis for investigating some of the problems and challenges associated with the transition from traditional networks and technologies to an advanced all-IP ("Internet Protocol") public communications network ("PCN"). Further, and of great importance to the development and maintenance of a competitive market, AT&T has not provided adequate information about availability or capabilities of its proposed alternate wholesale services,

---

1 AT&T Proposal for Wire Center Trials, GN Docket No. 13-5, *et al.* (filed February 27, 2014) ("AT&T Proposal").

2 *Technology Transitions, et al.*, GN Docket No. 13-5, *et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, FCC 14-5 at ¶ 8 (rel. Jan. 31, 2014) ("*Transition Trials Order"*).

including the pricing, terms, and conditions or the timeframes of the transition to grandfather and sunset its current time division multiplexing ("TDM") services. Considering AT&T's proposal as a whole in its current form, it is unclear what value the trials would be to the Commission and the industry toward advancing the objectives of a smooth transition to an all-IP PCN. This is especially the case because as competitive providers have demonstrated , the transition is already well underway and even AT&T's IP-based services have been widely deployed.

The current proposal also suffers from a lack of transparency, contrary to the intentions of the FCC when soliciting proposals for trials. In the *Transition Trials Order*, the Commission on several occasions underscored the need for transparency noting, for example, that it would seek comment on the proposals "[t]o ensure transparency and maximize public input."[3] AT&T submitted material portions of its proposal under a request for confidentiality, especially transition timelines, which limits the ability of personnel within interested companies to review the filings and comment on all aspects of the proposal. Consequently, the proposal as submitted hinders the objectives of transparency and maximum public input.

XO supports Commission action to ensure that any trials are lawful and meaningfully contribute to the Commission's understanding of the transition to an all-IP PCN. As a threshold matter, the Commission must consider AT&T's proposal from the standpoint of Section 214 of the Communications Act of 1934, as amended, given the expected impairment or degradation of certain services resulting from the proposed experiment. Unless the Commission determines that "neither the present nor future public convenience and necessity will be adversely affected" by the discontinuance and degradation of services AT&T contemplates, the experiment should not be permitted to go forward in the form as contemplated by AT&T.

---

[3] *Transition Trials Order* ¶ 5. *See also id.* ¶¶ 35, 174, and 176.

While an appropriately designed and conducted trial may yield the Commission useful information to assist it in supporting the industry during a transition to an all-IP PCN, XO submits that any results will not have any material bearing on the need to address key legal and policy issues. The fact that the Commission has failed to do so has left competitive providers, such as XO, in limbo and subject to the whims of dominant incumbent carriers. If the Commission wants the IP transition to move forward expeditiously, it has a responsibility to address these matters now. In particular, a number of essential policy issues are already presented in existing proceedings which have generated full records, including making clear that incumbent carriers like AT&T must provide for Section 251/252 managed IP-based interconnection and the need for technology neutral access to wholesale facilities and services at prices that would promote competitive services and ensure the benefits of competition for as many users as possible during and after the transition. In addition, the Commission should make certain that all parties understand that AT&T and other incumbent local exchange carriers ("ILECs") are not able to move forward with limiting or discontinuing service offerings without Commission approval under section 214.

XO supports the Commission's effort to have the industry undertake IP-related trials. For instance, XO believes there is great merit in the trials being considered within the Numbering Test Bed, which will consider issues such as routing of IP calls, possible modifications to numbering allocation, and database changes. These are issues that will require full industry involvement and Commission oversight for success. XO urges the Commission to focus sufficient attention to completing those trials expeditiously. At the same time, to carry out its responsibility to advance the public interest, which includes making sure that the network continues to work for consumers, carriers, and wholesale customers, the Commission should

scrutinize the AT&T proposal carefully and adopt modifications to correct the flaws discussed herein before allowing it to go forward.

## II. THE EVOLUTION TO AN ALL-IP NETWORK HAS BEEN PROCEEDING WITHOUT THE NEED FOR ANY TECHNOLOGY EXPERIMENT

In considering any proposed technology transition experiment, the Commission should determine what "added-value" the experiment will create. After all, from XO's experience, the industry has been moving rapidly toward the deployment of IP technology *without* needing any experiment. The Commission's stated goal is "to create arenas of innovation where providers and their competitors, and the customers of each, are free to explore a variety of approaches to resolving any *operational* challenges that result from transitioning to new technology and that may impact users."[4] XO submits that the "trials" as proposed by AT&T are unlikely to produce any market data that is not already available, given that, as the Commission duly notes, "[t]echnology transitions are already underway."[5] XO, for example, is in the middle of transitioning the underlying technology within its own network as it has explained to the Commission on prior occasions.[6] The transition has taken many complex turns, particularly as customers have many different telecommunications needs and requirements and especially in the business market relative to the residential market. There is no one-size–fits-all solution, but XO already has invaluable experience in using IP within its own network to operate efficiently (regardless of how the traffic originated), establishing managed IP-interconnection with other

---

4 *Transition Trials Order* ¶ 25.

5 *Id.* ¶ 2 (emphasis added).

6 *See, e.g.,* Comments of XO Communications, LLC on Petitions of AT&T and National Telecommunications Cooperative Association, GN Docket 12-353 (filed. Jan 28, 2013) at 2-3, 6-9 ("XO IP Transition Comments").

carriers, and making use of its own facilities and wholesale inputs to offer customers IP-based services, in addition to TDM-based services. Even AT&T admits that it has already introduced IP-based services and that the proposed trial is not necessary to introduce new IP-based services at any time or to test the services it proposes to offer throughout the trial:[7]

> The AT&T VoIP services that AT&T plans to use during the Wire Center Trial are already in place in those wire centers, as well as in hundreds of other wire centers across AT&T's in-region footprint. They have been tested over time and under various conditions. AT&T intends to offer these services in place of legacy services—first on a voluntary basis and ultimately as a replacement for discontinued services. These services are generally available in the marketplace, and have been for years—they are not in any way new or experimental. Consequently we already have practices and procedures in place to maintain and test facilities and to address service disruptions.[8]

Given AT&T's description of the already widespread deployment of its VoIP services – and given the flaws and opacity of AT&T's proposed trial – it is difficult to understand what its proposal will achieve, especially in relation to the considerable data already available regarding existing marketplace arrangements and conditions.

XO is especially concerned with the trial's flaws regarding the provision of wholesale facilities and services. Today, XO provides IP-based retail services over its network and, as the Commission is aware,[9] also relies significantly on wholesale inputs from ILECs such as AT&T, especially unbundled network elements ("UNEs") and special access, to provide various retail services to its customers – including TDM, IP, and IP over TDM services. XO's customer base is almost exclusively business and enterprise customers. Access to wholesale facilities and services from AT&T and other major ILECs is particularly important to XO, as well as other

---

7 AT&T Proposal at 9.

8 AT&T Proposal, Operating Plan at 24.

9 *See Transition Trials Order* ¶ 59 ("Competitive LECs often serve customers by relying significantly on incumbent LECs' last-mile networks, including by leasing a variety of copper-based UNEs and TDM-based DS1 and DS3 special access services.")

competitors, when serving business and enterprise customers, because in a substantial portion of the country, access to ILEC last-mile facilities is the only practical and economic way to offer competitive service.[10]

In analyzing XO's trend in purchasing wholesale inputs from AT&T, it is clear that XO uses the TDM inputs increasingly to provide IP-based retail offerings. Table 1 below shows the total number of DS0 and DS1 circuits XO currently purchases from AT&T (as of March 2014). XO does still have a strong base of retail customers that purchase TDM services and for which XO purchases and will continue to need underlying TDM wholesale services. Significantly, however, **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** of the purchased DS0 circuits are being used today to provide high-speed Ethernet over Copper ("EoC") services, and **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** of the purchased DS1 circuits are being used to provide Ethernet over Serial ("EoS") services, both of which are IP-based services.[11]

---

10 *See, e.g., XO IP Transition Comments* at 25-30; Comments of XO Communications, LLC on Technology Transitions Policy Task Force Public Notice Seeking Comment on Potential Trials, GN Docket No. 13-5, GN Docket No. 12-353, RM- 11358, filed July 8, 2013, at 16 ("Unless the Commission finds, using the very same market analysis tools refined in its unbundling forbearance decisions, that ILECs no longer maintain market power due to their persistent and effectively ubiquitous and unchallenged access to end user locations, then, of necessity, unbundling and interconnection obligations need to exist.").

11 XO obtains the DS1s from AT&T through both unbundled network element ("UNE") purchases (59%) **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL**]. These statistics underscore the importance of XO's continued access to TDM wholesale services.

**[BEGIN CONFIDENTIAL]**

**[END CONFIDENTIAL]**

Indeed, a comparison with XO's wholesale purchases from April 2012 (see Table 2 below) reveals that, in just the past two years, XO is making markedly increased use of DS0 and DS1 TDM inputs from AT&T to provide Ethernet services (IP-based services) to its retail customers.

**[BEGIN CONFIDENTIAL]**

**[END CONFIDENTIAL]**

XO, like many carriers nationwide, will use TDM wholesale services to deliver IP-based retail services now, during and after the transition, making these inputs a crucial component of the IP ecosystem. Similarly, AT&T currently provides its IP-based U-Verse service over existing copper facilities and presumably will continue to do so along with its own Ethernet over copper services.

XO also purchases AT&T's Switched Ethernet services for resale to its customers, albeit to a lesser degree than it uses AT&T's TDM UNE and special access wholesale services to provide EoC or EoS services. At this time, XO purchases and resells approximately **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** AT&T Switched Ethernet circuits at speeds comparable to its EoC/EoS services. AT&T's Switched Ethernet services are more expensive than the cost of purchasing TDM wholesale services to provide EoC or EoS services at comparable speeds. Accordingly, XO does not consider AT&T's Switched Ethernet to be a comparable service with respect to pricing, terms and conditions. Instead, XO considers purchasing AT&T's Switched Ethernet service only when network or market conditions leave XO with no other choice, such as when sufficient TDM wholesale services are not available or when customer requirements exceed the maximum speed that XO is able to offer using such TDM wholesale services.

## III. THE PROPOSED AT&T TRIALS ARE FLAWED

AT&T contends that its experiment will yield invaluable real-world experience regarding the issues that may arise as it transitions more customers to IP-based services and discontinues providing retail and wholesale TDM services in the selected wire centers. In reality, however, the proposed experiment as designed will likely provide only a very narrow window on one issue involved in the technology transitions and on one group of users -- AT&T's own retail

customers. To the extent the trial would otherwise produce meaningful data, it would be compromised by the fact that the selected wire centers do not adequately represent the nationwide status of the marketplace, either for retail or wholesale services.

AT&T has proposed technology transition trials in wire centers in Carbon Hill, AL, and in West Delray Beach (Kings Point), FL. Carbon Hill has a rural and sparsely populated wire center; XO is not present there. XO provides some services in Kings Point to business and enterprise customers, although this is not a wire center that is typical of those in which XO and other competitive local exchange carriers operate.[12] Not only are the wire centers inadequate to test the wholesale issues, it is also unlikely that these two wire centers out of diverse tens of thousands of wire centers within AT&T's operating territories, are sufficiently representative to provide any clear lessons that can be extrapolated to inform FCC policymaking regarding retail services. These two wire centers contain limited anchor institutions, include no PSAPs, involve moderate demographic diversity, and limited large businesses and enterprise firms.[13]

XO purchases **[BEGIN CONFIDENTIAL]**

**[END CONFIDENTIAL]** Given the demographics and geography of the Kings Point wire center, XO suspects that other CLECs have a similarly limited presence there. Thus, even if the wholesale customers voluntarily participated in the trial, it is unlikely that the data would be more meaningful than similar data collected from

---

12 An experiment limited to only two wire centers may inherently be inadequate as the issues that the nation as a whole will face as the result of the technology transition will not be represented in just two wire centers. This is why the Commission should draw principally on the experience of carriers, like XO, and other providers that are already deeply enmeshed in the transition to an all-IP PCN within their own networks in developing appropriate policies and rules.

13 *See, e.g., ex parte* presentation of Angie Kronenberg, COMPTEL, to Marlene H. Dortch Secretary, FCC, filed in GN Docket No. 13-5 and GN Docket No. 12-353 (dated Mar. 26, 2014) at 2 ("COMPTEL *ex parte*").

real-world experiences in other more representative wire centers. Most importantly, the Commission must not allow AT&T to dictate the timeline for discontinuing its TDM wholesale services while XO and/or other competitor continue to offer TDM services to their retail customers and must ensure that AT&T's trial does not negatively impact its wholesale customers or their retail customers.

Furthermore, all of AT&T's proposed wholesale IP-based alternatives are not fully developed and ready for deployment, as AT&T itself admits.[14] Thus, the "TBD" status of some of the wholesale alternatives, prevents the Commission and competitors from fully considering whether those alternatives will be comparable in rates, terms and conditions. Moreover, even for the limited set of wholesale alternatives designated in AT&T's proposal, AT&T has not provided terms and pricing information and sought overly broad confidential treatment of the deadlines for its proposed transition and sunsetting of TDM wholesale services.[15] Given the short transition timeframe proposed unsuccessfully by AT&T at the end of 2013 in modifying its federal special access tariffs,[16] XO has no confidence that AT&T's proposal would provide adequate transition

---

14 *See* AT&T Proposal, Operating Plan at 46 ("AT&T also is working diligently to develop IP replacement services, which it intends to make available for resale to wholesale customers on commercial terms. AT&T's objective is to complete those development efforts, as well as those aimed at developing an IP-based alternative to the LWC product, as soon as possible, although it is likely the final commercial products will not be available until the trials already are underway.")

15 *See. e.g.,* AT&T Proposal, Operating Plan at 45, n. 96 (transition dates redacted). Transition dates are also redacted as confidential in Exhibit B to the AT&T Proposal, Detailed Plan for specific services. AT&T explains that "wholesale customers will have the opportunity to obtain bare copper loops and utilize their own electronics to provide high capacity services to their end user customers." *Id.* at 46. AT&T does not offer details exactly under what rates, terms, and conditions the loops would be available, whether as UNEs or otherwise. Moreover, AT&T's surrounding discussion strongly implies that such copper loops and unbundled network elements may be available only for the "current" or "initial" stage of the trial, and provides inadequate information what will be available to wholesale competitors subsequently. *See id.*

16 *See In the Matter of Suspension and Investigation of AT&T Special Access Tariffs et al*, WC Docket No. 13-299, Order (rel. Dec. 9, 2013) (suspending the AT&T Nov. 25, 2013

time for competitors. As AT&T points out, "wholesale access, and other issues, are likely to be contentious, and will spark much debate over the next few years."[17] For this reason, XO submits it is critical that all of the details regarding its proposed transition of wholesale services be made public, including pricing, terms and conditions of AT&T's proposed alternative services as well as proposed deadlines for grandfathering and sunsetting the current TDM wholesale services.

The Commission's made clear that, in any trial, comparable services must be available at equivalent prices, terms, and conditions.[18] In particular, the Commission stressed its need to review:

> (1) the applicant's plan to ensure that the same types of wholesale customers can continue to use its network; (2) the applicant's plan to ensure that the access provided during the experiment – whether provided through unbundling, resale, or purchase of special access – is functionally equivalent to that provided immediately before the experiment; (3) the applicant's plan to ensure that the prices or costs of such access do not increase as a result of the experiment; (4) the applicant's plan to ensure that neither wholesale nor retail customers are penalized as a result of the experiment (e.g., purchases of alternative services count towards discounts for purchases outside of the experiment areas, early termination fees are waived if early termination is caused by the experiment); and (5) whether the experiment will have any other impact on the provider's wholesale customers.[19]

---

tariff revisions for five months and instituting an investigation, specifically Ameritech Transmittal No. 1803, Tariff F.C.C. No. 2 (filed Nov. 25, 2013); BellSouth Transmittal No. 71, Tariff F.C.C. No. 1 (filed Nov. 25, 2013); Nevada Bell Transmittal No. 254, Tariff F.C.C. No. 1 (filed Nov. 25, 2013); Pacific Bell Transmittal No. 498, Tariff F.C.C. No. 1 (filed Nov. 25, 2013); SNET Transmittal No. 1061, Tariff F.C.C. No. 39 (filed Nov. 25, 2013); SWBT Transmittal No. 3383, Tariff F.C.C. No. 73 (filed Nov. 25, 2013)). *See also Ameritech Operating Companies Transmittal No. 1803, Tariff F.C.C. No. 2 et al;* XO Communications, LLC Petition to Suspend and Investigate (filed Dec. 2, 2013). AT&T withdrew the referenced tariff filings effective January 16, 2014, pursuant to FCC Special Permission 14-001.

17 *Id.*

18 *Transition Trials Order* ¶ 59. *See also id.* ¶ 57 ("We presume that service offerings based on new technology will offer equivalent or better quality to comparable legacy-based services").

19 *Transition Trials Order, App B* ¶ 35.

AT&T insufficiently addressed these requirements, merely stating that "any customer considering [participating in the trial] – especially these sophisticated wholesale customers – will drive a hard bargain in that process – and that the end results of those negotiations would likely encompass terms such as those identified by the Commission in Appendix B."[20] The Commission should not permit AT&T to move forward with these trials without providing the necessary details for the Commission and competitors to adequately evaluate its proposed alternative wholesale services. Carriers cannot make business plans and serve customers based on "TBD". XO already knows that the current pricing for its Switched Ethernet service is higher than the costs of the TDM wholesale services XO purchases. AT&T's proposal, which apparently intends to rely on individual negotiations for rates, terms, and conditions of the alternative service – which in a substantial number of cases will not have competitive substitutes given AT&T's singular ubiquity in providing facilities and access to business and enterprise end user locations – provides no assurance that the prices and costs will remain comparable without increasing due to the experiment or that the experiment will not negatively impact XO and other wholesale customers and, in turn, their retail customers. In short, the proposed experiments within the two wire centers will touch only a small subset of the types of issues that providers and policymakers will face and need to resolve during the technology transition to an all-IP PCN.[21]

---

20 AT&T Proposal, Operating Plan at 47.

21 An experiment of this purported magnitude should be performed completely within the public eye so as to satisfy the Commission's objective of "transparency and maximize public input." *Transition Trials Order*, ¶ 5. The lack of public transparency manifested in the proposal is itself reason to not sanction the AT&T experiments as currently designed and to send AT&T back to the drawing board.

## IV. IMMEDIATE COMMISSION ACTION REGARDING AT&T TRIAL PROPOSAL

At stake in the Commission's review of the AT&T proposal is its responsibility for protecting the public interest and ensuring that the PCN works today and will continue to work correctly moving forward. Therefore, as a threshold matter, the Commission should ensure that AT&T obtains proper approvals, either for discontinuance or forbearance, before moving forward with trials.

The Commission can also assist in resolving questions about the identity, availability and capabilities of AT&T's proposed alternative services. Further, the Commission should oversee adequate testing, not just a sampling, to ensure alternative services are comparable in all material respects to the services they are replacing.[22] Moreover, as noted in the recent *COMPTEL ex parte, "*[w]hile AT&T lists competitive alternatives in its filing, none of those companies has the same legal obligations to provide voice or broadband services to the community, or last mile access or interconnection with competitors. As such, the Commission must conduct a close and careful evaluation of the availability, affordability, and substitutability of the services for residential, business, and wholesale consumers."[23]

In explaining the interconnection arrangements and routing for its IP traffic as well as its plans to discontinue its Feature Group D switched access services,[24] AT&T appears intent on transitioning its current and new customers to IP services provided by its non-ILEC affiliate in hopes of ultimately avoiding its Title II obligations. AT&T should not be able so easily to shed

---

22 *See, id.*, ¶ 57 ("We presume that service offerings based on new technology will offer equivalent or better quality to comparable legacy-based services.") Wholesale customers should be invited to participate actively in testing of new wholesale services.

23 *COMPTEL ex parte* at 2.

24 AT&T Proposal, Operating Plan at 16.

its interconnection obligations. In order to preserve the core value of facilitating competition and to make sure the network works, the Commission should oversee AT&T's proposed activities and act swiftly and decisively to preserve competition and the consumer benefits that arise from competition.

As these few examples are sufficient to demonstrate, there is the potential for serious impact on customers as a result of the proposed experiment. The FCC should exercise its authority and review AT&T's proposed experiments as part of its Section 214(a) discontinuance authority. That section proscribes discontinuance, reduction, or impairment of service to a community or part of a community unless the Commission issues a certificate "that neither the present nor future public convenience and necessity will be adversely affected thereby."[25]

Beyond that, the Commission should examine the proposal with an eye toward its efficacy in producing data that the Commission can use as it oversees the transition to an all-IP PCN. As one example, the means by which information and data is collected during the trial should be examined critically and adjusted. AT&T's intent to use consumer complaint information filtered through its own customer care center and associates and its website rather than a methodic, impartial data collection is extremely inadequate. AT&T should endeavor to obtain systematic, objective information regarding the ultimate trial and its impact, and such raw data should be reviewed by an independent neutral third party. Only in this way, assuming the trials are well-designed in other respects as well, could these trials help the Commission "protect

[25] 47 U.S.C. § 214(a)(3).

[] consumers, promot[e] competition, and ensur[e] that emerging IP-based networks remain resilient."[26]

## V. COMMISSION ACTION TO PROMOTE THE TRANSITION TO AN ALL-IP PCN WHILE PRESERVING ROBUST COMPETITION

In the *Transition Trials Order*, the Commission stated that it did not intend to resolve legal and policy questions resulting from the transition in the context of any trials.[27] As important, however, the Commission wisely did not commit to waiting until the trials are completed before addressing critical policy and regulatory questions, such as what wholesale obligations will apply to an ILEC's IP-based services, access to last-mile ILEC facilities and access on appropriate rates, terms, and conditions in the absence of TDM facilities subject to unbundling or Title II tariff requirements, and managed IP interconnection under Sections 251 and 252 of the Act. Resolution of these issues is essential to the preservation of competition during and after the transition to an all-IP PCN.

As XO explained at length in its earlier filings regarding the AT&T proposals for IP-based trials, the Commission has compiled a complete record regarding these important issues in several other proceedings.[28] The Commission already has underway proceedings considering principal policy issues to be addressed to promote competition such as: (1) the regulatory status of IP-enabled services,[29] (2) the regulatory protections needed to ensure managed IP

---

26 *See Transition Trials Order* ¶ 21. Regarding the promotion of competition, without a thorough examination of wholesale service issues by all parties with complete information, including the identification and offering of comparable wholesale services under equivalent prices, terms, and conditions, any technology transition, including any related experiment, will be a failure from a policy perspective as explained above.

27 AT&T Proposal at 29 n. 23. *See Transition Trials Order* ¶ 8.

28 *XO IP Transition Comments* at 21-22.

29 *See IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004).

interconnection takes place in a competitively-balanced environment and to ascertain the extent to which ILECs' carrier of last resort obligations should apply,[30] (3) procedures and protections associated with copper loop retirement,[31] and (4) the conditions under which the Commission might forbear from certain other dominant carrier obligations, including equal access rules in an packet-switched service environment.[32] In addition, the Commission is examining its rules regarding special access pricing flexibility to ensure they do not undermine competition, has developed a record to understand the anti-competitive nature of price cap LEC long term pricing agreements, and (through Wireline Competition Bureau staff) has been meeting with AT&T and competitor representatives regarding AT&T's plans to eliminate special access DS1 and DS3 arrangements of terms longer than three years.[33] The Commission can and should act on these issues regardless of the timing or the conduct of any trials. The transition to an all-IP PCN is well underway and would be well served by Commission leadership and guidance in these areas. There is no reason to wait for the results of any appropriate trials in order to make these decisions, and the success of the technology transitions – assuming a fully competitive

---

30 *See Connect America Fund, Report and Order and Further Notice of Proposed Rulemaking*, 26 FCC Rcd 17663 (2011).

31 *See Pleading Cycle Established for Comments on Petitions for Rulemaking and Clarification Regarding the Commission's Rules Applicable to Retirement of Copper Loops and Copper Subloops*, RM-11358, Public Notice, DA 07-209 (2007).

32 *See Petition of US Telecom for Forbearance from Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61 (filed Feb. 16, 2012).

33 *See, e.g., Special Access for Price Cap Local Exchange Carriers and AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 05-25 and RM-10593, FCC 12-153 (rel. Dec. 18, 2012); Comments of XO Communications, LLC on Further Notice of Proposed Rulemaking on Sections IV.A and IV.C, WC Docket No. 05-25 (filed Feb. 11, 2013). As noted earlier, AT&T's tariff filing in late 2013 seeking to eliminate DS1 and DS3 special access plans longer than three years was suspended and then withdrawn.

environment which the Commission has emphasized as a critical and ongoing goal – will likely depend upon it.

## VI. CONCLUSION

For the foregoing reasons, the Commission can and should exercise its authority to oversee the proposed trials in order to satisfy its responsibility to ensure the public interest is served and that the PCN continues to work. The proposed trials are of questionable value as currently constructed, given the already abundant deployment of IP-based retail services, and place too many critical issues as "TBD".

Any trial that the Commission might sanction should focus on objective data regarding networks and facilities with measurable metrics and third party review. It is also critically important that to maintain competition for all services, any trial must focus on ensuring that comparable wholesale services will be available at equivalent prices, terms, and conditions. Moreover, the Commission must ensure that AT&T publicly discloses all relevant information about the proposed alternative services, particularly wholesale services it has not yet finalized, and secure any necessary authorizations, either discontinuance or forbearance, before moving forward with the proposed trials

Without waiting for such a trial to be developed and conducted, the Commission can and should move forward to resolve important policy issues already under consideration in other proceedings to ensure that competition remains robust during and after the transition, offering consumers a variety of advanced telecommunications services and broadband options from numerous competitors and making sure the network works. Completion of the proposed trials is not a necessary prerequisite to addressing these policy concerns nor an excuse for postponing such resolution.

Respectfully Submitted

XO COMMUNICATIONS, LLC

Lisa R. Youngers
Tiki Gaugler
XO Communications, LLC
13865 Sunrise Valley Drive
Herndon, VA 20171
Telephone: (703) 547-2258

Thomas W. Cohen
Edward A. Yorkgitis, Jr.
Kelley Drye & Warren LLP
3050 K Street, NW
Suite 400
Washington, D.C. 20007
Telephone: (202) 342-8400
Facsimile: (202) 342-8451

March 31, 2014